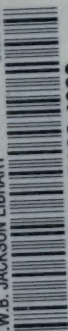


372.9755 V817V v.1 c.1
Virginia. Education commiss
Virginia public schools : a
P.W.B. JACKSON LIBRARY

OISE CIR



3 0005 02022 4039

VIRGINIA PUBLIC SCHOOLS VIRGINIA EDUCATION COMMISSION AND VIRGINIA SURVEY STAFF

EDUCATIONAL SURVEY SERIES

THE LIBRARY

The Ontario Institute
for Studies in Education

Toronto, Canada



E. In Wallace

LIBRARY

JUL 9 1969

THE ONTARIO INSTITUTE
FOR STUDIES IN EDUCATION

EDUCATIONAL SURVEY SERIES

Virginia Public Schools

A Survey of a Southern State Public School System

By THE VIRGINIA EDUCATION COMMISSION

HARRIS HART, PRESIDENT

and

THE VIRGINIA SURVEY STAFF

ALEXANDER J. INGLIS, DIRECTOR

IN TWO PARTS

PART ONE—REPORTS OF EDUCATION
COMMISSION AND SURVEY STAFF



YONKERS-ON-HUDSON, NEW YORK

WORLD BOOK COMPANY

1920

WORLD BOOK COMPANY

THE HOUSE OF APPLIED KNOWLEDGE

Established, 1905, by Caspar W. Hodgson

YONKERS-ON-HUDSON, NEW YORK

2126 PRAIRIE AVENUE, CHICAGO

Publishers of the following professional works: School Efficiency Series, edited by Paul H. Hanus, complete in thirteen volumes; Educational Survey Series, seven volumes already issued and others projected; School Efficiency Monographs, eleven numbers now ready, others in active preparation

ESS: VPS: I—I

*Copyright, 1920, by Virginia Education
Commission All rights reserved*

VIRGINIA EDUCATION COMMISSION

STATE SUPERINTENDENT HARRIS HART, President.

HON. FRANKLIN WILLIAMS, Secretary.

SENATOR C. O'CONOR GOOLRICK.

SENATOR G. WALTER MAPP.

HON. CHARLES H. ROLSTON.

PROFESSOR CHARLES G. MAPHS.

MISS BESSIE TAYLOR.

SUPERINTENDENT BLAKE T. NEWTON.

THE SURVEY STAFF

DIRECTOR

DR. ALEXANDER J. INGLIS, Harvard University.

DIVISION SPECIALISTS

DR. M. E. HAGGERTY, University of Minnesota, in charge of the Division of Tests.

MR. G. A. MIRICK, Harvard University.

DR. W. E. JOHNSON, State College of South Dakota.

DR. F. S. BREED, University of Chicago.

MR. JACKSON DAVIS, Field Agent of the General Education Board.

DR. M. E. NOONAN, Harris Teachers' College.

MRS. C. E. FLEMMING, Wisconsin State Department of Education.

DR. L. H. ZIEGLER, University of Minnesota.

MR. E. H. HUDDLESTON, Teachers College, Columbia University.

DR. M. E. BRYDON, Virginia State Department of Health.

SPECIAL COLLABORATORS AND MEMBERS OF FIELD STAFF

PROF. J. E. AVENT, Radford State Normal School.
DR. D. B. BRYAN, Richmond College.
PROF. A. B. CHANDLER, JR., Fredericksburg State Normal School.
PROF. W. B. COGGIN, Radford State Normal School.
MR. S. P. DUKE, State Supervisor of High Schools.
MR. T. D. EASON, State Supervisor of Agriculture.
PRINCIPAL J. M. GANDY, Virginia Normal and Industrial Institute.
PROF. J. R. GEIGER, College of William and Mary.
MR. J. N. HILLMAN, State Supervisor of Teacher-Training.
MR. W. T. HODGES, State Supervisor of Rural Schools.
DR. H. G. HOTZ, College of William and Mary.
MR. R. V. LONG, State Supervisor of Industrial Education.
PROF. J. L. MANAHAN, University of Virginia.
PROF. C. G. MAPHIS, University of Virginia.
PRINCIPAL F. D. MORTON, Manassas Industrial Institute.
PROF. M. D. PIERCE, Farmville State Normal School.
DR. W. T. SANGER, Harrisonburg State Normal School.
PROF. G. T. SOMERS, Farmville State Normal School.
PROF. W. F. TIDYMAN, Farmville State Normal School.
PROF. B. Y. TYNOR, Fredericksburg State Normal School.
MR. E. E. WORRELL, State Rural Supervisor.
MR. A. D. WRIGHT, State Supervisor of Colored Schools.

SPECIAL CONSULTANTS AND ADVISORS

DR. J. H. DILLARD, President of the Jeanes and Slater Funds. (Negro Education.)
PROF. P. H. HANUS, Harvard University. (Educational Administration.)
DR. T. J. JONES, Bureau of Education, Washington, D. C. (Negro Education.)
DR. L. M. TERMAN, Leland Stanford University. (Tests and Measurements.)
DR. G. P. PHOENIX, Hampton Institute. (Negro Education.)
DR. W. R. SMITHEY, Secretary of the State Board of Education. (Statistics.)
DR. E. G. WILLIAMS, State Health Commissioner. (School Hygiene and Physical Education.)
MR. W. T. B. WILLIAMS, Field Agent of the Jeanes Fund. (Negro Education.)
DR. R. M. YERKES, National Research Council. (Tests and Measurements.)

CONTENTS

PART I. REPORTS OF THE EDUCATION COMMISSION AND SURVEY STAFF

A. REPORT OF THE EDUCATION COMMISSION

	Page
1 SUMMARY OF RECOMMENDATIONS.....	7
2 OUTLINE OF CHANGES PROPOSED.....	10
3 INTRODUCTORY STATEMENT.....	11
4 ORGANIZATION OF SURVEY STAFF.....	13
5 REPORT OF FIELD WORK.....	14
6 CONSTITUTIONAL AMENDMENTS PROPOSED.....	18
7 STATE BOARD OF EDUCATION.....	19
8 THE SUPERINTENDENT OF PUBLIC INSTRUCTION.....	18
9 DUTIES OF STATE BOARD OF EDUCATION.....	19
10 THE COUNTY UNIT.....	20
11 DISTRIBUTION OF SCHOOL FUNDS.....	22
12 LOCAL SCHOOL FUNDS.....	22
13 COMPULSORY ATTENDANCE.....	23
14 SUMMARY OF CONSTITUTIONAL AMENDMENTS.....	23
15 AMENDMENTS AND CHANGES IN STATUTES.....	27
16 THE SCHOOL TERM.....	27
17 THE AGE OF ATTENDANCE.....	28
18 THE SCHOOL CENSUS.....	28
19 TEXT BOOKS AND SUPPLIES.....	29
20 TEACHERS' SALARIES.....	31
21 THE TRAINING OF TEACHERS.....	35
22 HIGH SCHOOLS.....	37
23 VOCATIONAL EDUCATION.....	39
24 PHYSICAL TRAINING, SCHOOL SANITATION.....	40
25 THE EDUCATION OF NEGROES.....	41
26 RURAL SCHOOLS.....	42
27 DIVISION SUPERINTENDENTS.....	44
28 FINANCIAL SUPPORT.....	46
29 DISTRIBUTION OF SCHOOL FUNDS.....	49
30 LOCAL SCHOOL BUDGET.....	50
31 PROPERTY VALUATION FOR ASSESSMENT.....	50
32 OTHER AMENDMENTS.....	50
33 FINANCIAL STATEMENT OF COMMISSION.....	52

B. REPORT OF THE SURVEY STAFF

	Page
CHAPTER I. Problems and Needs of Education in Virginia.....	53
CHAPTER II. The School Term in Virginia.....	62
CHAPTER III. School Population, Enrolment and Attendance..	66
CHAPTER IV. The Progress of Pupils in the Schools.....	79
CHAPTER V. The Elementary School Program.....	96
CHAPTER VI. The Results of Instruction Measured.....	112
CHAPTER VII. The Teaching Force in Virginia.....	133
CHAPTER VIII. The Training of Teachers.....	149
CHAPTER IX. The Certification of Teachers.....	162
CHAPTER X. Secondary Education.....	171
CHAPTER XI. Practical Arts Education.....	178
CHAPTER XII. School Hygiene and Health Education.....	187
CHAPTER XIII. Negro Education in Virginia.....	197
CHAPTER XIV. The Supervision of Instruction in Rural Schools.....	211
CHAPTER XV. The Small School and School Consolidation...	217
CHAPTER XVI. School Organization.....	225
CHAPTER XVII. School Buildings, Grounds and Equipment...	232
CHAPTER XVIII. State Organization and Administration....	242
CHAPTER XIX. School Administration in County and District	251
CHAPTER XX. City School Administration.....	263
CHAPTER XXI. Financial Support.....	270
APPENDIX A. Tables.....	287

SUMMARY OF RECOMMENDATIONS

CONSTITUTIONAL AMENDMENTS

1. To provide for a State Board of Education to be appointed by the Governor.

Amend:

Constitution Section 130.

Code, 1918, Section 596; 597; 598; 599; 600.

Reference Commission Report I, 1.

Survey Report; Chapter 18, 1.

2. To provide that the State Superintendent be appointed by the State Board of Education. His selection to be determined without reference to place of residence.

Constitution, Section 131.

Code, 1918, Sections 596; 597; 598; 600; 621; 623.

Commission Report I, 2.

Survey Report, Chapter 18, 2.

3. To provide that division school superintendents be elected by local school boards from a list of eligibles prepared by the State Board of Education.

Amend:

Constitution, Section 132, Articles 1 and 3.

Code, 1916, Section 605; 624.

Commission Report I, 3.

Survey Report, Chapter XIX, 4.

4. To provide that the county, city or town rather than the district be the unit of school administration, and that the school affairs of such unit be under the general control of a school board to be elected by the qualified voters thereof, and that the present trustee electoral board, district school board, and county school board be abolished.

Amend:

Constitution, Section 133, to be repealed.

Code, 1918, Sections 629, 630, 631, 632, 633, 634, 635, 636, 638, 639, 640, 641, 642, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 680, 681, 727, 776, 780, all the foregoing to be repealed.

Sections 645, 646, 647, 649, 650, 671, 672, 673, 677, 678, 690, 691, 694, 701, 705, 706, 707, 708, 714, 719, 720, 721, 726, 728, 729, 730, 732, 733, 736, 739 (3), 741, 744, 747, 748, 750, 751, 752, 754, (757-764), (765-773), 777, 786, to be amended.

Commission Report I, 4.

Survey Report, Chapter XIX, 5.

5. To provide for a wise and just manner of distributing the State school funds and to change the age of school attendance.

Constitution, Section 135.

Code, 1918, Section 719, 746.

Commission Report, I, 5.

Survey Report, Chapter XXI, 4.

6. To provide for local tax for school purposes and to remove the limit of five mills from the Constitution and fix a limit to be determined by law.

Amend:

Constitution, Section 136.
Code, 1918, Section 739, 740.
Commission Report I, 6.
Survey Report XXI, 3B.

7. To remove the constitutional limitations on the compulsory attendance law.

Amend:

Constitution, Section 138 to be amended.
Code, 1918, Section 722.
Commission Report I, 7.
Survey Report, Chapter III, 3, 4.

AMENDMENTS TO STATUTES

1. To provide a standard school term of nine months for elementary and high school grades.

Amend:

Code, 1918, Section 669, 705.
Commission Report II, 1.
Survey Report, Chapter II.

2. To fix the age of school attendance at from 6 to 18 years, inclusive.

Amend:

Code, 1918, Section 719.
Commission Report II, 2.
Survey Report, Chapter III, 1.

3. To provide for an accurate school census in 1920 and for every five years thereafter and for a cumulative census for each intervening year.

Code, 1918, Section 653, 654.
Commission Report II, 3.
Survey Report, Chapter III, 1.

4. To provide that State owned text books be furnished to pupils.

Code, 1918, Section 725; Acts, 1916, page 714.
Commission Report II, 4.
Survey Report, Chapter V, 3.

5. To increase the fund for teachers' salaries by increasing the State tax from fourteen to twenty cents and to provide a standard salary based on minimum professional qualifications.

Amend:

Acts, 1918, page 569.
Commission Report, II, 5.
Survey Report, Chapter VII, Chapter XXI.

6. To provide that the State normal schools for the training of teachers be placed under the control of the State Board of Education.

Amend:

Code, 1918, Section 940, Acts, 1914, page 567, to repeal.
Code, 1918, Section 948, 949, 950; to repeal.

To provide that the course of training for teachers of elementary schools at the normal schools for white women be extended from two to three years and that high school courses now offered at these institutions be abolished.

Commission Report II, 6.

Survey Report, Chapter VIII.

7. To provide that normal training departments in high schools be abolished.

Code, 1918, Section 709, 710, 711, 712; repeal.

Commission Report II, 6.

Survey Report, Chapter VIII, 3.

8. A recommendation that State institutions of higher learning be operated upon an all year basis with special provision in the summer quarter for teachers in the public schools.

Commission Report II, 6.

9. To provide for an efficient system of high schools without retarding the development of the elementary schools and recommending an appropriation therefor.

Amend:

Code, 1918, Section 705, 706, 707, 808, 739 (1).

Commission Report II, 7.

Survey Report, Chapter 10.

10. To provide for the development of vocational education and recommending a special appropriation for training in home economics.

Amend:

Acts, 1918, page 131.

Commission Report II, 8.

Survey Report, Chapter XI.

11. To provide for physical training in the schools, and for the proper supervision of school and community sanitation.

Commission Report, II, 9.

Survey Report, Chapter XII.

12. To provide for the development of the education of negroes.

Commission Report II, 10.

Survey Report, Chapter XIII.

13. To provide for the proper organization and development of the small rural schools.

Commission Report II, 11.

Survey Report, Chapter XV.

14. To provide for the salary of the division superintendent of schools on a fair and equitable basis.

Amend:

Code, Section. 606, 626, 748.

Commission Report II, 12.

Survey Report, Chapter XIV.

15. To provide adequate financial support for the public school system.

Amend:

Constitution, Section 135, 136.

Code, 1918, 739 (1), 740, 750, 781 (repeal), 782.

Commission Report II, 14.

Survey Report, Chapter XXI.

16. Other Amendments.

PARTIAL OUTLINE OF CHANGES PROPOSED

STATE ADMINISTRATION

*Present Law**Proposed Law**State Board*

Three members elected by the people.	Appointed by the Governor.
Three members appointed by the Senate.	
Two members elected by the above six.	

State Superintendent

Elected by the people.	Appointed by the State Board as
Member of the State Board and President, the Board fixing his duties.	its administrative officer. Not a member of the Board.

LOCAL ADMINISTRATION

Trustee Electoral Board.	City, county or town, if separate division, unit of administration.
District School Board.	City school board of five members elected from city at large.
County School Board.	County board of one member from each magisterial district elected by qualified voters. Members to receive reasonable per diem.
District unit of administration, trustees of which appointed by trustee electoral board which also acts as board of appeal on the acts of its own appointees.	
498 school districts with 1,499 school trustees and 300 members of trustee electoral boards.	
People have no direct participation. Members of district board receive \$10.00 per year.	

Division Superintendents

Appointed by State Board.	Appointed by local board from
Chairman of County Board.	list of eligibles prepared by
Member of Trustee Electoral Board.	State Board. Not a member of local board, but its administrative officer.

School Funds

State Funds.	State Funds.
District Funds.	County and City or Town Funds.
County or City Funds.	Definite budget.
Other Funds.	
Separate accounting of each.	

A. REPORT OF THE EDUCATION COMMISSION

SINCE the adoption of the present State Constitution, at virtually every session of the Assembly of Virginia, school legislation has been urged and passed. The Constitution itself is not limited to general principles in dealing with public education, but makes many detailed provisions, and in large part it is responsible for a complex and awkward machinery of control. When added to this are many laws and regulations, some not properly co-ordinated or related, the resulting scheme is too complicated to admit of easy understanding, and too cumbersome to encourage efficient service.

There has for some time been a strong feeling that the school system ought to be reorganized, simplified, and made more directly responsive to the demands of the people. This feeling found expression in the Assembly of 1918 in the passage of the following bill providing for a careful study of school conditions in the State as a basis for report and recommendations to the Assembly of 1920:

"1. Be it enacted by the general assembly of Virginia, that a commission consisting of two members of the house of delegates, to be named by the speaker, two members of the senate, to be named by the president thereof, the superintendent of public instruction and three persons, one of whom shall be a woman and all three of whom shall be engaged in work connected with the public free school system of the State, to be named by the governor, is hereby created.

"2. The said commission shall make a thorough study of the existing laws, conditions, and needs of the schools, and a comparison of such progressive systems of education as will enable the said commission to make practical and suitable recommendations to the members elect of the next general assembly. The said commission shall submit to the general assembly at least sixty days before the convening thereof for its approval at its next session, a revision of the school laws and suggested amendments to article IX of the Constitution.

"3. The State Board of Education shall provide a fund from the General Public school fund of the State, not to exceed ten thousand dollars, or as much thereof as may be necessary, to pay the necessary expenses of this commission, and to carry out the purposes of this resolution, and the said commission is authorized to employ such expert help as it may deem necessary. Members of this commission shall receive for the actual time of service their necessary traveling expenses and six dollars per diem. All expenses incurred by the commission shall be paid by the State Board of Education upon vouchers signed by the chairman and secretary of said commission."

The Commission was composed of the following members:

From the Senate: Senators G. Walter Mapp and C. O'Connor Goolrick;

From the House: Delegates Charles H. Rolston and Franklin Williams;

Appointed by the Governor: Miss Bessie Taylor, Prof. Charles G. Maphis, and Supt. Blake T. Newton;

The State Superintendent, Harris Hart.

The first meeting of the Commission was held July 18, 1918, when Superintendent Hart was elected chairman, and Hon. Franklin Williams, secretary. The general problem before the Commission was discussed and the following Committees were assigned to study certain large aspects of the problem:

(1). *Committee on Organization:*

Hon. Charles H. Rolston, Chairman;

Hon. G. Walter Mapp;

Supt. Blake T. Newton.

(2). *Committee on Administration:*

Prof. Charles G. Maphis, Chairman;

Hon. Franklin Williams, Jr.;

Miss Bessie P. Taylor.

(3). *Committee on Support:*

Hon. C. O'Connor Goolrick, Chairman;

Prof. Charles G. Maphis;

Hon. Franklin Williams, Jr.

Several meetings were held to arrange for a survey of school conditions.

At a meeting on December 17, 1918, the Commission decided to engage the services of Dr. Alexander Inglis, of Harvard University, as director of the survey, it being decided that the best results could be obtained by having an eminent specialist in education from out of the State direct a field staff made up of Virginians acquainted with local sentiment and local conditions.

Dr. Inglis secured the co-operation of other eminent specialists in this country to act in an advisory capacity and to test certain

conclusions by the experiences of other States. The field staff was composed, for the most part, of Virginia educators of wide experience and training, to which staff the State Board of Education assigned two supervisors for full time and one for about half time.

The work of the Survey Staff was organized under the following divisions:

Division of Organization and Administration. Investigation of the educational organization and administration, including the Board of Education, the Superintendent of Public Instruction, the Normal School Board, the County Electoral Board, the County Board, the District Trustees, the Division Superintendent, the City School Boards.

Division of Buildings and Equipment. Investigation of the character of buildings and equipment, laws and regulations, actual conditions.

Division of Attendance and Enrolment. Investigation of regulations concerning enrolment, attendance, etc.; actual conditions regarding enrolments, attendance, length of term, length of school course, retardation, elimination, over-age, etc.

Division of Course of Study and Instruction. Investigation of the educational program offered and actually given, time allotments for various studies in schools of the same and of different types, text-books.

Division of Teacher Status and Training. Investigation of the teacher supply, the amount and character of teachers' training, and amount of experience, certification, teachers' salaries, the normal schools and teacher training departments of higher institutions.

Division of Tests and Measurement. The application of standard tests to children in various types of schools, and the measurement of the results of teaching in Virginia as compared with other States.

Division of Negro Education. An investigation of conditions in negro schools.

Division of Finance. Investigation of financial problems and conditions: The cost of education in Virginia and elsewhere, expenditures, the sources of funds, and their distribution and apportionment.

Division of Physical Education. Investigation of the status of physical education, school hygiene, etc.

Division of Vocational Education. Investigation of the status and needs for vocational education in Virginia.

Division of School Organization. Investigation of the way in which schools are organized in Virginia, school consolidation, the problem of the one-room school, junior high schools, etc.

REPORT OF FIELD WORK DONE

Division of Organization and Administration. The organization and administration of the State Board of Education and the Superintendent of Public Instruction have been carefully examined, and a policy of State organization and administration has been determined.

First hand examinations were made of nearly every county of the State and of every city, to ascertain the working of the present form of organization and administration. Representatives of the Survey Staff visited each division superintendent in his own office (in most cases) and made careful record of existing conditions. On those visits and in conferences, members of the Survey Staff discussed with division superintendents existing difficulties and possible remedies. Definite policies looking toward improvement have been agreed upon.

A careful comparison has been made between conditions in Virginia and in other parts of the country.

Division of Buildings and Equipment. Members of the Survey Staff have visited and scored on a standard form more than six hundred rural school buildings and many city buildings in the State, care being taken in case of rural buildings to examine typical schools of all sorts in twenty counties considered representative of the State. Definite recommendations have been prepared for the improvement of present conditions.

Division of Attendance and Enrolment. Conditions regarding enrolment, attendance, retardation, elimination, over-age, etc., have been investigated in all the schools of eighteen counties and in all cities. Records have been secured and interpreted involving nearly fifty thousand white and fifteen thousand colored children in county schools, and nearly sixty-five

thousand white and nearly twenty-five thousand colored children in city schools. On the basis of the information thus secured and interpreted, the Survey Staff is prepared to make definite recommendations concerning the length of the school term, attendance, grading, promotion, etc., etc.

Division of Course of Study. Members of the Survey Staff have examined the theoretic course of study for Virginia schools and have investigated the extent to which that theoretic course is carried out in the schools of different types. First-hand study of the situation has been made in more than a thousand schools of various types, and the Staff is prepared to make several recommendations for the improvement of conditions.

Division of Teacher Status and Training. Members of the Survey Staff have investigated the training, experience, teaching, status, and salaries of teachers in all schools of eighteen counties intensively, in all generally, and in all cities of the State. On the basis of their findings, they are prepared to make important recommendations. The normal schools of the State have been investigated by members of the Survey Staff, and conditions in the departments of education in higher institutions have been examined. Recommendations have been agreed upon for the work of the teacher-training institutions.

Division of Tests and Measurements. For the first time in a State Survey, an attempt has been made to ascertain the character of the work of the schools by means of actual standard tests given by the Survey Staff. The gift of twelve thousand five hundred dollars for this purpose by the General Education Board has made it possible to test about twenty thousand children in the public schools of Virginia.

Examinations have been given in schools of every type, and a careful interpretation of the results made. Pupils have been tested in grades one to eight in twenty-two counties and fourteen cities. It is estimated that about three hundred thousand tests have been given in all, producing a body of information never before approached in this country or any other. This material is considered by competent judges to be the most satisfactory body of measurement data which has ever been collected.

The tests given were of two sorts. The first group was intended to measure the achievements of children in reading, arithmetic, spelling, handwriting, algebra, and English composition. In measuring the achievements of children, use has been made of well-known standardized educational tests and scales. In addition to those tests a new scale for the measurement of primary reading has been devised. In addition to the achievement tests, there has also been given a test to measure the general capacity of children to do school work. In order to check the validity of any new tests and of the general capacity tests, the same tests have been given at the instance of the Virginia Survey Staff to children in many places outside the State so that proper comparisons may be made.

On the basis of these tests and measurements, recommendations are made to the Educational Commission.

Division of Negro Education. The peculiar problems of Negro education in Virginia are considered and recommendations made through an advisory board consisting of Mr. Jackson Davis, formerly Supervisor of Negro Schools in the State; Dr. James Dillard, President of the Jeanes and Slater Funds; Dr. Thomas Jesse Jones, of the Federal Bureau of Education, who has made a special study of Negro education in the South; Dr. George Phenix, Vice-Principal of Hampton Institute; Mr. John Gandy, Principal of the State Normal and Industrial Institute; and Mr. J. W. B. Williams, Field Agent for the Jeanes and Slater Funds.

Divisions of Finance. On the basis of the investigations made by the Survey Staff, a definitely constructive program is recommended for the financial support of the schools.

Division of Physical Education. Matters of school hygiene have been studied by members of the Survey Staff in over six hundred rural schools and all city schools. In addition, the Director of Child Welfare and School Hygiene has carefully analyzed information concerning physical education and school hygiene.

Division of Vocational Education. Working under the direction of the Survey Staff, the State Supervisor of Industrial Education has investigated the industrial educational situation in fourteen of the larger cities of the State.

Division of School Organization. Members of the Survey Staff have considered carefully problems of the one-room school and of consolidation, and also the possibilities of the junior-senior high school organization in Virginia. They have a definite program of recommendations.

The conditions, facts, and figures brought out by the Survey Staff were analyzed during the summer months and formed the basis of the report of the Staff to the Education Commission. In a series of meetings of the Commission from August 27th to September 3d this report was presented in person by Dr. Inglis.

This report contains so much illuminating and valuable material, brought together in such a clear and logical fashion, that the Commission feels it ought to be preserved in permanent form. This material is, therefore, printed as a part of the report to the General Assembly. The use of the Survey Staff's report will relieve the Commission of the necessity of portraying at length school conditions in Virginia, or of amplifying certain arguments for the adoption of the recommendations submitted. References to the Staff report will make the recommendations of the Commission clear and convincing.

This report, therefore, is divided into two parts:

1. Recommendations of the Commission to the General Assembly;
2. The report of the Survey Staff to the Commission.

The Assembly of 1918 authorized the State Board of Education to use ten thousand dollars of the public school funds to defray the expenses of the Commission. This sum was too small to make possible a serious study and thorough analysis of the school conditions in the State. Through the efforts of the Commission and the Director of the Survey Staff, an added amount, twelve thousand, five hundred dollars, was secured from the General Education Board for a department of tests and measurements.

A statement of the receipts and expenditures for the Commission is appended to this report.

The Education Commission considers it most unfortunate that the Constitution of Virginia, in the sections on public education, has dealt too much in particulars. In consequence,

a number of very important reforms which should be instituted at once must await the tedious process of constitutional amendment. If the Constitution had dealt only with fundamental principles and had left particular adjustments to the Legislature, the way would be clear for more immediate improvement in the school affairs of the State.

Owing to this situation, the recommendations of the Commission will have to embrace certain constitutional amendments. The recommendations are, therefore, classed under the following heads:

- I. Constitutional amendments;
- II. Statute laws.

I.—CONSTITUTIONAL AMENDMENTS

(1). *State Board of Education.* Section 130 of the Constitution provides that the general supervision of the school system shall be vested in a State Board of Education, composed of the Governor, the Attorney-General, the Superintendent of Public Instruction, and three experienced educators elected by the Senate from a list of eligibles, consisting of one from each of the faculties of the State institutions of higher learning. The six members thus selected appoint two added members, one of whom must be a city and the other a county school superintendent. Chapter XVIII of the report of the Survey Staff presents reasons why this composition of the Board is considered unfortunate. The divided responsibility, the lack of unity in the method of forming it, and the rather complicated manner of its choice, would seem to point to the fact that a simpler plan of organization would serve better the interests of education.

There is a marked tendency in public affairs to limit the number of officials and to increase individual responsibility. We believe that the State Board of Education should be appointed directly by the Governor of the State, who should be made responsible for the efficiency of this board. It is important to fix the number of its members and the tenure of office in such a way as to discourage as far as possible the effort of an executive who may be influenced more by political expediency than by devotion to public service.

The Commission, therefore, recommends an amendment to the Constitution whereby Section 130 is annulled, and as a substitute for it, a provision is adopted that the general supervision of the school system shall be vested in a State Board of Education to be appointed by the Governor, subject to the confirmation of the Senate, and to consist of such number, with such tenure of office, as may be fixed by law.

(2). *The Superintendent of Public Instruction.* Section 131 of the Constitution provides that the Superintendent of Public Instruction shall be elected by the qualified voters of the State, at the same time and for the same term as the Governor; that his duties shall be prescribed by the State Board of Education, of which he shall be *ex-officio* president; and his compensation shall be fixed by law.

The Commission believes that it is fundamental to the best interests of the common schools to give the people of the State a larger and more direct participation in school affairs. With this participation, apathy will give place to interest; thoughtless acquiescence to initiative; and criticism to co-operation. The Commission believes this participation, however, should more properly find scope in local school affairs and local problems than in the election of a State official.

Chapter XVIII of the report of the Survey Staff, Section ii, presents very pertinent arguments against the election of the State Superintendent by the people. With these arguments the Commission is in agreement. It, therefore, recommends that Section 131 of the Constitution be amended to provide that the Superintendent of Public Instruction shall be appointed by the State Board of Education, his selection to be determined without reference to place of residence.

(3). *State Board, Duties.* The Constitution, Section 132, enumerates the duties of the State Board of Education, specifying that it shall divide the State into school divisions, appoint a school superintendent for each division, manage and invest the school fund, select text-books, etc. The Commission is of the opinion that to enumerate duties in the Constitution itself is unwise, and particularly is the duty to appoint division school superintendents not consonant with the Commission's belief as to the best method of procedure.

It is recommended, therefore, that Section 132 be amended to provide that the State Board of Education shall divide the State into appropriate school divisions, comprising not less than one county or city or town each, but no county or city or town to be divided in the formation of such divisions, and that the State Board shall exercise such other powers and duties as may be fixed by law.

(4). *County Unit.* The Commission, in agreement with the Survey Staff, urgently recommends that the county rather than the school district be made the unit of administration. Under the present arrangement, the complex local school machinery is the most serious obstacle to progress. The people of the country have no direct participation in school affairs. A trustee electoral board created by statute and consisting of the division superintendent, the Commonwealth's attorney, and a citizen appointed by the court, selects three trustees for each district, a number fixed by the Constitution, Section 133, and acts as a court of appeal to review the acts of its own appointees. Each district board is a corporate body and may act in many matters independently of other district boards in the same county. Such uniformity and general co-operation as is found in a county then, is due to the foresight and wisdom of school officials rather than to the provisions of the law. It would be hard to invent a more unsatisfactory plan of local control than the one now in vogue in Virginia. The State is chopped up into 498 school districts, with a total of 1,499 district trustees. In addition there are 190 electoral boards with a total of 200 members, exclusive of the division superintendents, or a total of 1,694 board members.

The division superintendent occupies the anomalous position of being a member of the trustee electoral board which appoints trustees, chairman of the county school board, and commonly by courtesy the directive officer of district boards, and then member of the electoral board in its capacity of a board of appeal or review. The fact that this scheme has worked at all is a testimony to the patriotism of trustees and to the devotion of superintendents. Certainly there is nothing in the arrangement itself to commend it as a wise administrative plan. We call special attention to Chapter XIX of the Survey Staff report, and we particularly urge that attention be given to Table 119 showing how indifferently the present plan operates.

The Commission recommends an amendment to the Constitution to provide that the control of the school system in each county and in each city or town, which forms a separate school division, shall be exercised by a school board to be elected by the qualified voters of such county or city or town to the number and for a term to be prescribed by law, both men and women being eligible as members of such school boards. The school board of each county, city and town, if the same be a separate school district, shall appoint a division superintendent of schools from a list of eligibles furnished by the State Board of Education, and shall exercise such other duties and powers as may be fixed by law or prescribed by the regulations of the State Board of Education in accordance with the law.

It is further recommended that the trustee electoral board, the district school board, and the county school board as now constituted be abolished, and that the statute prescribe that the school affairs of each city and town which forms a separate school division be under the control of a school board of five members elected by the qualified voters of the city at large for a term of four years; and that the control of the schools in each county be under a county school board composed of one member for each magisterial district, elected by the qualified voters thereof for a term of four years. The statute should provide a per diem for school board members not to exceed five dollars per day for not more than fifteen days in any one year. Provision should be made also that in case a county board have an even number of members because of the even number of magisterial districts, a tie vote on the election of the division superintendent shall be settled by the State Board of Education, and in the event of a tie vote on any other matters, the division superintendent shall vote.

The Survey Staff recommends that members of the county board be elected from the county at large rather than by magisterial districts. The Commission agrees in principle with this recommendation, but owing to the peculiar situation in rural Virginia and to the traditional practice of regarding the magisterial district as the political unit in elections, it is thought that for the present, at least, better results will be obtained by continuing a practice familiar to the people. The magisterial

district is to be continued, however, purely as the basis of electing board members, and not in any sense as the basis of operating the schools.

(5). *Distribution of School Funds.* The report of the Survey Staff, Chapter XXI, Section iv, discusses the present illogical method of distributing school funds in Virginia. A careful reading of this chapter will clearly indicate that to distribute State funds for school purposes on the basis of school population is illogical and unfair, in that there is no fixed relationship between the amount of money which the State may send to a division and the clearly established needs of that division. The Commission, therefore, recommends that Section 135 of the Constitution be amended so as to provide for the distribution of school funds in a manner to be determined by law. It further recommends the elimination from this section of the suggested age limit, seven to twenty, in order to make it possible for the Assembly of Virginia to fix what may appear to be a proper age for school attendance.

(6). *Local School Funds.* Section 136 of the Constitution provides for local revenues for the schools by the levying of taxes in cities and in counties and school districts. This section contemplates the maintenance of the school district as a unit of taxation, as provided in Section 133. The recommendation of the Commission that the school district be abolished necessitates a revision of this section in such way as to provide for one county tax for school purposes. Already an amendment is under way which would remove the limit fixed in the Constitution and provide that the limit be fixed by statute.

The Commission, therefore, recommends that Section 136 be amended to provide that each county, city and town, if the same be a separate school division, shall levy on all classes of property subject to local taxation a tax for school purposes, the amount of funds needed to be determined by the school board of such county, city and town, and the necessary tax to be levied and collected by the county board of supervisors or city or town council, but said tax shall not be in excess of a maximum to be fixed by law. The statute law should provide that not less than half of the funds derived from the local tax or an amount equal to the State fund for this purpose shall be used to pay salaries of teachers.

An amendment was offered in the Assembly of 1918 removing the limit of five mills on the aggregate local tax as fixed in Section 136 of the Constitution. We urgently recommend that the Assembly of 1920 act favorably on this resolution in order that by a vote of the people, the limit may be removed from the Constitution and be fixed in the statute law.

(7). *Compulsory Attendance.* Section 138 of the Constitution is also to be amended under a regulation which passed the Assembly of 1918. This section places certain illogical limitations on the operation of a compulsory school law. These are removed in the proposed amendment, the General Assembly being given discretion to provide for compulsory education and to fix the age limit, the length of attendance and other particulars. The Commission urges the Assembly of 1920 to take favorable action on this resolution in order that the amendment may be voted upon by the people.

The Commission desires to pause here long enough to emphasize the very great importance of a practical compulsory school law. It invites a serious study of Chapter III, Section iv, of the report of the Survey Staff. The per cent of children who are attending school in Virginia with sufficient regularity to make real training possible is alarmingly small. Careful attention is invited to Tables 9, 10, 11 and 12; also Tables 13 and 14 of the report of the Survey Staff.

The recommendations of the Commission on amendments to the Constitution of Virginia are summarized in the following:

Strike out from the Constitution of Virginia Section 130 of Article 9, which is in the following words:

The general supervision of the school system shall be vested in a State Board of Education, composed of the Governor, Attorney-General, Superintendent of Public Instruction, and three experienced educators, to be elected quadrennially by the Senate, from a list of eligibles, consisting of one from each of the faculties, and nominated by the respective boards of visitors or trustees of the University of Virginia, the Virginia Military Institute, the Virginia Polytechnic Institute, the State Female Normal School at Farmville, the School for the Deaf and Blind, and also of the College of William and Mary so long as the State continues its annual appropriation to the last named institution.

The board thus constituted shall select and associate with itself two division superintendents of schools, one from a county and the other from a city, who shall hold office for two years, and whose powers

and duties shall be identical with those of other members, except that they shall not participate in the appointment of any public school official.

Any vacancy occurring during the term of any member of the board shall be filled for the unexpired term by said board.

Strike out from the Constitution of Virginia Section 131 of Article 9, which is in the following words:

The Superintendent of Public Instruction, who shall be an experienced educator, shall be elected by the qualified voters of the State at the same time and for the same term as the Governor. Any vacancy in said office shall be filled for the unexpired term by the said board.

His duties shall be prescribed by the State Board of Education, of which he shall be *ex-officio* president; and his compensation shall be fixed by law.

Strike out from the Constitution of Virginia Section 132 of Article 9, which is in the following words:

The duties and powers of the State Board of Education shall be as follows:

First. It may, in its discretion, divide the State into appropriate school divisions, comprising not less than one county or city each, but no county or city shall be divided in the formation of such divisions. It shall, subject to the confirmation of the Senate, appoint, for each of such divisions, one superintendent of schools, who shall hold office for four years, and shall prescribe his duties, and may remove him for cause and upon notice.

Second. It shall have, regulated by law, the management and investment of the school fund.

Third. It shall have authority to make all needful rules and regulations for the management and conduct of the schools, which, when published and distributed, shall have the force and effect of law, subject to the authority of the General Assembly to revise, amend, or repeal the same.

Fourth. It shall select text-books and educational appliances for use in the schools of the State, exercising such discretion as it may see fit in the selection of books suitable for the schools in the cities and counties, respectively.

Fifth. It shall appoint a board of directors, consisting of five members, to serve without compensation, which shall have the management of the State Library, and the appointment of a librarian and other employees thereof, subject to such rules and regulations as the General Assembly shall prescribe; but the Supreme Court of Appeals shall have the management of the law library and the appointment of the librarian and other employees thereof.

Strike out from the Constitution of Virginia Section 133 of Article 9, which is in the following words:

Each magisterial district shall constitute a separate school district, unless otherwise provided by law. In each school district there shall be three trustees selected in the manner and for the term of office prescribed by law.

And insert in lieu of all of the above sections the following:

The general supervision of the school system shall be vested in a State Board of Education to be appointed by the Governor, subject to the confirmation of the Senate, and to consist of such number, with such tenure of office, as may be fixed by law.

The State Board of Education shall appoint as its executive and administrative officer a Superintendent of Public Instruction, whose selection may be determined without reference to place of residence, and whose term of office and salary shall be fixed in accordance with the provisions of the law. The State Board of Education shall divide the State into appropriate school divisions, comprising not less than one county or city or town each, and no county or city or town shall be divided in the formation of such divisions. The State Board of Education shall exercise such other duties and powers as may be fixed by law.

The control of the school system in each county, and city and town which forms a separate school division, shall be under a school board to be elected by the qualified voters of such county or city or town, to the number and for a term to be prescribed by law, provided that both men and women may serve as board members. For each school division, the school board or school boards thereof shall, subject to the confirmation of the Senate or of the State Board of Education, appoint a division superintendent from a list of eligibles prepared by the State Board of Education on a basis of reasonable academic and professional qualifications. The county and the city or town school board shall have such other duties and powers as may be fixed by law or prescribed in accordance with the law by the State Board of Education.

Strike out from the Constitution of Virginia Section 135 of Article 9, which is in the following words:

The General Assembly shall apply the annual interest on the literary fund; that portion of the capitation tax provided for in the Constitution to be paid into the State treasury, and not returnable to the counties and cities; and an annual tax on property of not less than one nor more than five mills on the dollar to the schools of the primary and grammar grades, for the equal benefit of all of the people of the State, to be apportioned on a basis of school population; the number of children between the ages of seven and twenty years in each school district to be the basis of such apportionment; but if at any time the several kinds or classes of property shall be segregated for the pur-

poses of taxation, so as to specify and determine upon what subjects State taxes and upon what subjects local taxes may be levied, then the General Assembly may otherwise provide for a fixed appropriation of State revenue to the support of the schools not less than that provided in this section.

And insert in lieu thereof the following:

The General Assembly shall apply the annual interest on the Literary Fund; that portion of the capitation tax provided for in the Constitution to be paid into the State treasury, and not returnable to the counties and cities; an annual tax on property of not less than one nor more than five mills on the dollar, to the public schools for the equal benefit of all the people of the State, to be apportioned on a basis to be prescribed by law, but if at any time the several kinds or classes of property shall be segregated for the purpose of taxation so as to specify and determine upon what subjects State taxes and upon what subjects local taxes may be levied, then the General Assembly may otherwise provide for a fixed appropriation of State revenue for the support of the schools to be not less than that provided in this section.

Strike out from the Constitution of Virginia Section 136 of Article 9, which is in the following words:

Each county, city, town (if the same be a separate school district), and school district is authorized to raise additional sums by a tax on property, not to exceed in the aggregate five mills on the dollar in any one year, to be apportioned and expended by the local school authorities of said counties, cities, towns and districts in establishing and maintaining such schools as in their judgment the public welfare may require; provided, that such primary schools as may be established in any school year shall be maintained at least four months of that school year before any part of the fund assessed and collected may be devoted to the establishment of schools of higher grade. The boards of supervisors of the several counties, and the councils of the several cities and towns, if the same be separate school districts, shall provide for the levy and collection of such local school taxes.

And insert in lieu thereof:

Each county, city and town, if the same be a separate school division, is authorized to raise additional sums by a tax on property, not to exceed in any one year a maximum to be fixed by law, to be apportioned and expended by the school board of such county, city and town in establishing and maintaining such schools as the public welfare and the standards set up by

the State Board of Education may require. The school board of such county, city and town shall determine the amount of the school tax, which shall be levied and collected by the councils of the several cities and towns and the boards of supervisors of the several counties.

II.—RECOMMENDED AMENDMENTS AND CHANGES IN STATUTE LAW

(1). *School Term.* Chapter II of the report of the Survey Staff describes in great detail the evils attendant upon the short school term in Virginia. In the opinion of the Commission it is impossible to provide adequate school training for the boys and girls of the State without a material lengthening of the school term, particularly in the non-city schools. In the cities, the term of nine months is well-nigh uniform, but in rural Virginia the length of term is variable and commonly insufficient. The Assembly of Virginia of 1918 in the appropriation bill, very wisely imposes the condition that the local school division should maintain a term of at least seven months or twenty days longer than the previous session, or for a period satisfactory to the State Board of Education, before it can share in the cash appropriation bill. This has materially improved the situation.

In years gone by, a term of five months was regarded to be a legal minimum. The action of the Assembly of 1918, above referred to, would tend to establish seven months as the legal minimum. It is the serious conviction of the Education Commission that the statute law of the State should recognize a standard term of nine months for non-city as well as city schools. Code 1918, Section 669, should, therefore, be revised in such a way as to establish a standard term of nine months instead of a term of five months as indicated in the statute.

Code 1918, Section 705, provides for the establishment of high schools on the condition that no State funds shall be used for high school purposes until the primary and grammar grades of the district or districts have been maintained for a term of at least five months. This provision is illogical from two points of view. In the first place, the attempt to differentiate between elementary and high school training in such a way as to set up one as opposed to the other rather than the treatment of both as parts of a unit of effort is archaic, and not in accordance with the spirit of modern progress.

The people of Virginia want high school training for their children just as surely as they demand elementary training. By proper regulation, the State Board of Education should see to it that advanced grades do not thrive at the expense of the elementary grades, but the statute law should no longer contain provisions which would indicate that high school education is a luxury reserved for the few.

The provision is again illogical because it indicates the possibility of developing a system of high schools on a minimum elementary term of five months. This encourages the belief that a superstructure of training can be based on a very limited elementary foundation. The statute should be revised in order to eliminate any such suggestion.

(2). *Age of Attendance.* Attention is directed to Chapter III of the Survey Staff report for an enlightening discussion of the problem of school age and attendance in Virginia. It is practically impossible to ascertain at the present time what is the legal age of attendance in Virginia. The Constitution provides, as above stated, that school funds shall be distributed on the basis of school population, children between the ages of seven and twenty being enumerated. In 1914, a statute was passed providing for the admission, under certain conditions, of children six years of age. The Commission recommends that the statute law define the school age to be from the age of six to eighteen, inclusive, and that the school population be enumerated upon the basis of the number of children of these ages.

The law should provide for the attendance of children under six years of age upon kindergartens operated as a part of the public school system.

Code 1918, Section 719, should be amended to read:

Public schools shall be free to all persons from six to eighteen years of age, inclusive, and persons under six years of age may be admitted to kindergartens operated as a part of the public school system, etc.

(3). *School Census.* Under the present statute the census of the school population is taken every five years. School reports showing among other items percentage of attendance are required every year. It is clear that all school statistics in the Virginia schools are inaccurate and untrustworthy on this

point, except for the one year out of the five immediately following the census. In other words, the base upon which attendance and percentage records are made is now fixed only every five years for a five-year period, whereas the percentages are tabulated every year. The rate or per cent of attendance is, therefore, clearly misleading. To make school statistics really valuable and in order that the people may understand what the actual condition is, it is necessary for some form of cumulative census to be taken every year.

The regular census to be worth while must be accurate, therefore, great care and precaution should be exercised in the appointment of persons to take the census, and the pay for such work should be reasonable. Code 1918, Section 653, provides that in 1920, and every five years thereafter, the census shall be taken by the clerk of the district board or by deputies appointed by the division superintendent, and that for such service the clerk or his deputies shall be paid three dollars per hundred of the children listed.

We recommend that this Section be so amended as to provide for a census of all children from six to eighteen years of age, inclusive, to be taken in 1920 and every five years thereafter, and that for each intervening year a cumulative census shall be made. The regular census shall be taken by agents appointed by the school board on the recommendation of the division superintendent, said agents to be paid an amount not to exceed five dollars per hundred. The cumulative census shall be recorded on a census card to be provided by the Department of Education, and shall be made yearly on information which the superintendent may secure from teachers, parents, local school leagues, and from reports submitted to him by the Bureau of Vital Statistics. This census shall deal only with additions and corrections to the regular census made once every five years.

(4). *Text-Books.* Chapter V of the report of the Survey Staff sets forth the condition which exists relative to the supply of text-books and supplies. It is evident that an adequate and prompt supply of these materials is necessary for instructional purposes. Three elements of the problem of school texts give concern: The retail price of the books, the change of text-books,

and their distribution. So long as texts must be sold to pupils at a retail price, a small difference in the price will encourage a tendency towards the adoption of a cheaper book. The price is commonly the only thing the patron observes, and insistence upon the article of lower cost is not unnatural. Every precaution ought to be taken to place in the hands of pupils the best and most teachable texts, but under the present circumstances this can be done only with difficulty.

So long as books must be bought by pupils, there will continue to be strong opposition to changing the books, because this is thought to entail loss and to impose an unnecessary burden upon the parent. While needless changes in the State list ought to be avoided in any circumstances, yet latitude should be allowed in order to keep the texts of this State abreast with the best books the market can furnish.

The most serious aspect of the present condition is the practical impossibility of having a satisfactory distribution of books. Publishers are under contract with the State Board of Education to furnish texts at a certain retail price and to provide that they be on sale at points convenient to pupils of the State. In order to carry out this latter provision, book publishers have established in the city of Richmond a depository which assumes the responsibility of distribution. Various methods have been tried in States having statewide book adoptions, for the most part the Southern States, to secure a satisfactory means of distribution, and the depository plan has more nearly approached success than any other method attempted. Yet the results are far from satisfactory. The depository sends books on consignment to local dealers who are allowed ten per cent for handling the texts. Dealers frequently undertake this work unwillingly, for the margin is too small to allow reasonable profit over the expense of carrying on the business. As a result, many sections of the State have no means of supply, and it is no uncommon thing for a patron to have to go twenty-five miles to get school books for his children. The dealer oftentimes cannot be induced to put in a liberal stock, and when this is exhausted, the new supply is much delayed. As a result of this situation, schools are forced to run for several weeks or even months with a very inadequate supply of texts. This means great loss in instruction, and delayed promotion of pupils.

The only cure for this condition is in State owned text-books. By this plan the State would purchase books from the publishers or their depository at Richmond at wholesale prices, and on requisition, furnish them to county school boards. The latter should have a locked book-case in each school room in which the supply of books for the room would be placed before the opening day of school. The books could be given out by the teachers with proper direction for their care and return at the end of the term. The saving of great loss in time and in instruction, the relief of parents from the inconvenience and expense they now have, and the saving of the texts owing to the supervision of their care and use, would in a large measure remunerate the State for the cost of supplying the books.

The Commission, therefore, recommends that Act, 1916, page 714, Code 1918, Section 725, allowing, under certain conditions, districts or county school boards to provide free school books, be amended so as to provide that basal elementary text-books be furnished by the State Board of Education on requisition from the county school board, and an appropriation be made therefor, and that the county school board shall provide adequate means for distribution. No bill providing free text-books accompanies these recommendations, the Commission being of the opinion that the Assembly of Virginia should use its discretion as to the time of passing such a law.

(5). *Teachers' Salaries.* The Commission urges that Chapter VII of the Survey Staff's report be read with special care. The condition of the teaching staff in Virginia is portrayed in striking fashion. Such topics as the supply of teachers, the stability of the force, the training of teachers, and teachers' salaries are treated in such way as to give a just and clear conception of actual conditions.

The Commission holds that it is absolutely futile to attempt to develop a safe and thorough system of training unless provision is made to guarantee that pupils will have thorough instruction under trained teachers. The quality of the instruction to be offered is the essential thing in any system of training, and therefore the teacher is the real crux of the whole system. The wisest administration and the most expensive facilities may amount to nothing unless there be trained and capable teachers

in the school rooms. The public apparently has not viewed this question quite seriously enough. Too often a mere pretense of training has met with easy acceptance. When a school room has been provided and some person put in charge, we have been prone to believe that satisfactory training will always result. This result will never follow unless the person in charge is really a capable teacher. The Commission urges with the greatest emphasis that any system of schools dependent upon teachers who are not well trained and qualified is dangerous and may be positively pernicious. It is a very expensive procedure also when the loss of time and the incalculable loss of character development is considered. It is not, therefore, a question whether the State can afford to furnish good schools, but whether the State can withstand the inestimable loss which may result from inefficient schools. Civilization is progressive and States move forward. Each generation must be trained not only to appreciate the inheritance of the past but to make a positive contribution to the progress of the future. Boys and girls must be trained in their early years how to think and how to work, if they are to be expected to assume a leading place in the march of progress. Any State which denies them this training in a serious and thorough fashion, places an insurmountable barrier to efficient citizenship. It may save a little money now merely to pay a heavy tribute to ignorance in the future.

These are some of the considerations which impel the Commission to ask that the Legislature, and the people behind the Legislature, do everything possible to put the public school system on a higher and more substantial financial basis.

The teaching force in Virginia, as set forth in Chapter VII, is not adequate, is not stable, and on the whole is not well trained. The one fundamental fact which has brought this situation about and which encourages it to continue, is the inexcusably low salaries paid teachers. It is not a matter of less native ability, less patriotism, or less devotion, it is purely and simply a matter of the very low financial estimate placed on the worth of teaching. Every other profession and every class of workers, even the most unskilled, have been placed on a higher wage scale than teachers. The State cannot offer the skilled service

which the children ought to have, on a basis of pay so low that it would be rejected by the lowest class of unskilled labor.

The cost of instruction or the pay of teachers is by far the largest item in the expense of conducting a school system, representing in a well regulated budget about two-thirds of the total expense. If, therefore, this problem can be met, most other difficulties will disappear. Table 121 shows the amount of money necessary to pay the teaching force in Virginia on the basis of several scales of salary. The average pay for school teachers throughout the United States is \$75 per month for nine months, or \$675 per year. It cannot be seriously argued that Virginia should pay qualified teachers less than the average for the country, and certainly no argument is needed to prove that Virginia cannot secure qualified teachers for a less amount. The Commission, therefore, urges that the State of Virginia make the scale of salaries for teachers at least equal to the average for the country. To do this will require approximately ten million dollars for instruction alone, an amount about equal to the total cost of the entire school system for the year 1919-20.

Under the State law, all funds derived from the State and county school taxes must be used exclusively for the pay of teachers, while the district fund is used for the operation and maintenance of the school plants. If the county be made the unit of operation, as the Commission recommends, and if, therefore, the district school taxes be combined with the county taxes under one levy, then the local county tax must be large enough to provide for the purposes heretofore covered by county and district taxes separately. In either event, the State fund and at least one-half of the local fund must be required for salaries. Assuming that two-thirds of the total budget should be used for teachers' salaries, the Commission is of the opinion that approximately one-third of the total budget should be provided through State funds and two-thirds through local funds, one-half of the latter being used for instructional purposes. The Commission's estimate of ten million dollars for instruction would mean a total budget of at least fifteen million dollars a year, an amount substantially in agreement with the estimate reached by the Survey Staff after a most painstaking

study of this problem. Of this fifteen million, the State should raise five million, and one-half of the local tax should produce an equal amount.

The State contribution to the public school system comes now through the capitation tax, a ten-cent property tax, an added four-cent property tax, and the cash appropriation. The amounts available under these heads are as follows:

Capitation and ten-cent tax.....	\$2,008,472.45
Four-cent tax.....	498,286.42
Appropriation, including high school amount	732,850.00
	<hr/>
	\$3,239,608.87

This total must be used exclusively for instructional purposes. The practical problem which presents itself is how to increase this State fund to five million dollars. The only source from which the school fund can be raised is the State tax and the appropriation bill. The amount to be derived from a State tax is determined not only by the tax rate but fundamentally by the valuation of property. With the present property valuation, a school tax of twenty-five cents is imperative. The Commission insists that five million dollars is the minimum State fund which will give promise of an efficient school system, but it believes that this amount should be produced by a lower tax rate and a higher and more equitable property valuation. Under no conditions can an adequate fund be provided by a less tax than twenty cents. If the present State tax of fourteen cents be increased to twenty cents, about \$750,000 would be added, making a total State fund of approximately four million dollars. The Commission is urging at a later point in this report an increase in the appropriation bill amounting to four hundred and fifty thousand dollars, which would bring the State fund, on the basis of the present assessed values, to four million, four hundred and fifty thousand dollars. We believe that on the basis of a fair and equitable property valuation, the estimates given above will approximate the amount imperatively demanded.

The Commission, therefore, recommends that the State tax for school purposes to be used exclusively for the pay of teachers, be increased from fourteen cents to twenty cents.

A large number of States have adopted minimum salary laws for school teachers. The general effect of such a law is to increase salaries. The Commission is of the opinion that it is necessary to have a standard salary law for the State of Virginia, provided minimum professional requirements be set up as the basis for the operation of this law. The object in mind is to provide at least a minimum quality of instruction for the children, not a minimum amount of pay for the teachers. The effect of such a law based on reasonable requirements will, in the opinion of the Commission, be more salutary than a general minimum salary law. The latter will have to be put at a comparatively low figure and may serve in many instances as really a maximum standard. The minimum based on qualifications can be much higher and will offer a real inducement for teachers without professional qualifications to attain a higher standard of preparation.

The Commission recommends a salary law, fixing \$900 as the standard salary to be paid any full time teacher who has had a regular course of instruction of the grade equivalent to a four-year high school course, and in addition, professional instruction equivalent to at least two full sessions of professional work at one of the State normal schools. The State Board of Education shall adopt such a standard of equivalents as will be fair and just to experienced and successful teachers now engaged in school work.

(6). *Teacher Training.* The relation between teacher training and the administration and conduct of the school system is intimate. It is not wise to attempt to separate these two departments of school endeavor. Attention is called to Chapter VIII of the report of the Survey Staff on the training of teachers. A careful study of this chapter will indicate the wisdom of recommending that the State normal schools be placed under the direct management of the State Board of Education to be constituted as recommended in this report, and that all powers now delegated to the State Normal School Board be assigned to the State Board of Education. This arrangement will not only make possible the conduct of the normal schools in more intimate connection with the public school system, but will aid in the solution of the related problem

in Virginia, namely, the reduction in number of the present multiplicity of boards. This recommendation would abolish the Normal School Board of the normal schools for white women, Act 1914, page 567, Code 1918, Section 940; and rescind Code 1918, Sections 947 to 951, continuing the Board of the Virginia Normal and Industrial Institute for Negro Teachers.

The Commission recommends that the four normal schools for the training of white teachers shall offer a course of training three years in length rather than two, as at the present time, and that graduates shall be required to teach in the public schools of this State three years rather than two as now provided. The Commission also recommends the elimination of school work of secondary grade now offered at the State normals. The main excuse for giving this work is that many sections of the State are without high school facilities. While this is true of a limited number of sections, yet the solution of this problem must be sought by establishing high schools where they are actually needed for all of the children of high school age, rather than by encouraging high school work at normal schools where it can benefit only a small number of the young ladies who seek preparation as teachers.

Attention is directed to the Survey Staff's report, Chapter VIII, i (f), dealing with the question of college work offered at the State normal schools. The needs of trained teachers for the elementary schools is so acute that, in the opinion of the Commission, the normal schools should be limited in their sphere of action, in order to devote themselves exclusively to the preparation of teachers for the elementary schools and for those special courses which can be offered in a three-year period.

Normal training departments in high schools represent an effort to meet the teacher shortage by encouraging a short term and rather unsatisfactory course of training. The high school teaching force is too restricted in number, the term of study too brief, and the facilities for practice teaching are too indifferent to guarantee even reasonable returns from these departments. The Commission, therefore, commends the action of the State Board of Education in restricting and discouraging such normal training course, and recommends the abolition of these departments in high schools. (Act 1918, page 69, Code 1918, Sections 709 and 711.)

Training teachers in the profession will continue to be a most important factor in supplying qualified teachers. Heretofore, short term courses in summer schools and institutes have been depended upon to accomplish most of this task. These summer terms have been offered at State institutions for a period of six weeks, and at one or two other localities for a briefer period. The importance attached to these brief courses has, in the opinion of the Commission, been out of proportion to their worth. A study of the present status of Negro teachers in Virginia would indicate that in their case, short term summer courses may have to be depended upon for some years to come as a supplement to more serious effort.

For the benefit, primarily of teachers, the Commission recommends that the University and other State institutions of higher learning be placed on a twelve months' basis, offering a summer quarter for men and women of equal grade with any other quarter. Degree credit shall be allowed for work of appropriate grade done in the summer quarter and for the completion of prescribed courses, degrees shall be conferred.

This quarter should be divided into two terms of six weeks each, at least one of which terms should be designed to meet the needs of the public school teachers, but both terms should be open to teachers who are in a position to take advantage of the larger opportunity presented.

From an economic point of view, the Commission believes that great physical as well as instructional waste results from the practice of closing certain State institutions during the summer. The imperative need for a larger number of prepared teachers and the unusual opportunity which a summer quarter offers, confirms the Commission in its belief that State institutions should be run at full time capacity.

(7). *High Schools.* In 1906 it was recognized that one of the chief defects of the rural school system was the lack of high school facilities. The Assembly of that year passed an act appropriating \$50,000 for the establishment and maintenance of high schools, which appropriation was increased the following session to \$100,000. A campaign was carried on in Virginia to encourage the people to see the need of secondary school facilities, and to this the people responded with great interest and enthusiasm. From 1906 to the present time, the number of

high schools has increased from 133 to 665. Automatically the amount of money which the State Board has available for any one high school has been so much decreased as to be of little material assistance. The Commission is of the opinion that while high schools ought not to be excluded from participation in the general school fund, yet this participation should be guarded in such way that in no circumstances will the development of elementary schools be handicapped by the growth of high schools. The per capita cost of a pupil in the high school grades is naturally much larger than in the elementary schools, and if the entire school fund be distributed with proportionate consideration for high school work, the children of the lower grades will be seriously hindered in their progress. It seems, therefore, to be a very wise provision in the law of 1906 which makes a direct appropriation for high school work. This serves two purposes: It develops the high schools and protects the elementary schools. While the number of high schools has increased over four hundred per cent since the earlier period, the appropriation has remained the same. The Commission recommends an appropriation for high school work sufficient to guarantee the proper development of high schools without retarding in any fashion the elementary grades. The appropriation must be large enough to enable the State Board to send to a given school a sum sufficient to aid it materially in maintaining high school standards. The Commission, therefore, recommends that the Act of 1906, page 350, entitled, "An Act to establish and maintain high schools and to appropriate money therefor," and Code 1918, Sections 705-708, be amended so as to provide:

a. An appropriation of \$400,000, which under proper regulation, the State Board of Education shall use for the maintenance of high schools in the counties and cities of the State.

b. A provision that the elementary schools of the district or county or city must be maintained for a term of at least eight months.

c. The local school board shall, from local funds, appropriate for high school teachers' salaries an amount at least equal to the appropriation by the State.

d. No teacher shall be employed in high school instruction whose qualifications do not meet the standards set up by the State Board.

e. The State Board of Education shall appropriate to the standard four-year high schools an amount not to exceed \$1,200, or to the two-year high schools, organized on the plan prepared for the rural junior high schools, an amount not to exceed \$1,000, provided that of the local appropriation to match the State appropriation for junior high schools, an amount not to exceed two-fifths of the local amount may be used to purchase special equipment needed in schools of this type.

(8). *Vocational Education.* The Commission desires to emphasize the necessity of further developing training in the practical arts and vocational education. Agriculture, or agricultural instruction, should receive distinct emphasis. The departments of vocational agriculture, conducted with the aid of Federal funds, should be continued and encouraged. Training in trades and industries has been undertaken by the State Board of Education, and for the current session a number of courses have been set up in the cities of the State. Likewise, home economics is now being encouraged, but very unfortunately, the provisions of the Federal bill make liberal appropriation to home economics impossible, and render difficult the conditions under which the work is given.

The Commission recommends that the Act, Assembly 1918, page 131, to provide for the acceptance of the conditions of the Federal act to encourage vocational education be passed at the Assembly of 1920, with amendments which will make the State appropriation sufficient to match the Federal aid for the period 1920 to 1922. For the specific encouragement of training in home economics, made impracticable under the Federal law, the Commission recommends that \$15,000 of the high school appropriation may be used by the State Board of Education in the establishment and maintenance of departments of home economics.

The present appropriation bill carried \$25,000 to encourage building and equipment to be used for vocational education. It is provided also that this amount be distributed from the Virginia Polytechnic Institute. Vocational education in

Virginia is organized and directed by the State Board of Education acting as a State Board for Vocational Education.

The Commission is of the opinion that all funds voted by the Assembly for the development of vocational education in secondary schools should be distributed through the State Board. There is no good reason in the opinion of the Commission for the \$25,000 above referred to to be distributed in any other manner. We, therefore, recommend an amendment to the appropriation bill to provide that \$25,000 for building and equipment for vocational education be distributed by the State Board for Vocational Education.

The development of commercial education, under standards no less high than those fixed for college preparatory courses, is recommended. It is the serious judgment of the Commission that short-cut and indifferent courses of instruction in commercial training are inimical to the best interests both of the pupils who take the courses and of the business interests they attempt to serve.

(9). *Physical Training, Sanitation.* Particular attention is invited by the Commission to Chapter XII, which sets forth the condition pertaining to health and sanitation. No matter of public concern demands more earnest consideration than the health of the children and of the people of the community. The school room may be a place for the positive physical development of children, or through carelessness and indifference, it may become a perfect hotbed for the breeding of disease. Physical education is now recognized not as something secondary or even auxiliary, but as a most important part of the training for citizenship. In order for the State to receive its full share of benefit from the scheme of training, there must be reasonable guarantee that the citizens will be strong and healthy physically. They will thus become an added force to the community, and not a burden. The Commission urges that county boards of supervisors and county school boards adopt measures for the proper inspection of school and home premises in order to enforce the elementary laws of sanitation; that provision be made for the medical inspection of school children, either by physicians or trained nurses; and that a system of health record cards and reports be instituted in order

that parents may be notified of those physical defects which may escape their attention, but which are apparent to the practiced eye of a physician or nurse. Provisions should be made for the service of a competent person, who, under the joint control of the State Board of Education and the Department of Health, should have general direction of definite work in physical education for the children and sanitation for the community.

(10). *Education of Negroes.* The people of Virginia should think very seriously about the present status and needs of the schools for Negroes. While the improvement in recent years has been noticeable and in a few features rather remarkable, yet on the whole, the situation of the Negro schools is far from satisfactory. They suffer from the same defects as noted in the case of the schools for white children, but to a more serious degree. Shortage of trained teachers, brief terms, poor salaries, and lack of physical equipment constitute the problem to be solved.

It is peculiarly necessary that the teachers in the Negro schools be well trained and wisely directed. To entrust these children to slipshod and haphazard instruction is dangerous. The Commission recommends the immediate improvement of the facilities for training Negro teachers. The Virginia Normal and Industrial Institute should have an appropriation sufficient to install at once certain improvements necessitated by the unsanitary conditions of the school. A more liberal allowance should be made for faculty in order that instruction in methods and practice teaching may be further developed. The salaries of Negro teachers in the public schools must certainly be increased. As long as a Negro woman can make more money in any ordinary field of labor than she can make by teaching school, an insurmountable handicap will be placed on the development of teachers. It is most important that Negro supervisors be employed in larger numbers than at present in order to direct the efforts of the teachers. The number of county training schools for Negro teachers should be increased and the work ought to be placed on a surer basis.

The Commission, therefore, recommends that an amount of money from local taxes more nearly in proportion to the number of Negro children in a locality be used for the training of these

children. It recommends further a liberal co-operation on the part of county supervisors and school boards in the maintenance of rural supervisors and in the establishment of county training schools for Negro teachers. Particularly does the Commission urge that the physical training of the Negro children be very carefully developed, and that the sanitary arrangements of the school houses and homes for Negroes be observed with unusual care in order to guarantee that such conditions may never become a menace to public health.

(11). *Rural schools.* The small rural school, particularly of the one- and two-room type, presents the great problem in Virginia. This problem is carefully treated in Chapter XV of the report of the Survey Staff. Education in our larger cities and centers of population is developing as rapidly as circumstances will permit, yet in too many rural sections of Virginia, progress has not been noteworthy. There are over six thousand one- and two-room schools in the State. Many of them in the course of time may be eliminated by the natural processes of consolidation, but it is too much to hope that consolidation will ever prove the solution of the entire problem. The schools must be developed by being put upon a basis of practical operation with a possible schedule of work. The grade of instruction in these schools is, as in the case of all other schools, the most serious aspect of the problem. With them the condition is peculiarly unfortunate, because a combination of circumstances has encouraged the best teachers to go to the centers of population, leaving, in most instances, the less prepared teachers for the rural schools. The actual teaching and conduct of such schools are most difficult. A situation, therefore, has developed in which the positions needing the strongest and best prepared teachers are being filled often by those least prepared.

The recommendation of the Commission for a substantial increase in the amount for teachers' salaries will materially better the condition in the rural schools. In addition to this increase, however, the Commission recommends that local boards fix a bonus for teachers in one- and two-room country schools in order to compensate them for the heavier burdens assumed, and the more difficult conditions of work.

The Commission also recommends that the course of study in the one-room schools be limited as far as possible to the first

five grades, and in the two-room schools to seven grades. There is a laudable ambition now to establish high school work convenient to all the boys and girls in the State. This ambition should be satisfied just as soon as it can be, but no attempt should be made to give high school work to the few pupils in the advanced grades at the expense of the very large number of pupils belonging to the elementary grades.

Again in the case of the one- and two-room schools, the practice of strict gradation seems to work a disadvantage by multiplying the number of classes and reducing the time allotment. The Commission recommends the adoption of a plan of grouping the subjects whereby pupils studying the same subjects and of approximately the same degree of advancement shall be thrown together. It is imperative that the teacher have sufficient time to do a reasonable amount of individual work and to supervise the study as well as the recitation period. Certain practical arrangements which will make this possible ought to be followed.

The State Board of Education should be encouraged in its policy of assisting in the employment of rural supervisors. This is one of the best means of training teachers in the profession, and at the same time of guaranteeing to pupils a far better grade of instruction than could otherwise be secured. The Commission urges that the field of work for any one supervisor be sufficiently limited to permit of intensive supervision in the rural schools. The Commission recommends that the present appropriation of \$250,000 for the elementary schools and the special supervision thereof be increased to \$400,000.

The State Board of Education is wisely undertaking a reorganization of the types of rural schools in such way as to provide for elementary schools, junior high schools, and standard high schools. The theory of this plan is to establish elementary schools reasonably convenient to all the boys and girls of the State, a smaller number of junior high schools, to which those completing the elementary schools can go, and a limited number of four-year high schools. The problem would be comparatively easy to work out as an original proposition, but it is now made difficult of solution by the fact that the location of schools has heretofore been usually determined by the lines of the school

district rather than from the point of view of the whole county. Reference is made to the "Manual and Courses of Study for the High Schools of Virginia," recently published by the State Board of Education. Very careful attention is also invited to Chapter XVI of the report of the Survey Staff. The recommendations of this chapter, so far as practicable, can be carried out by the State Board of Education without specific statute law.

(12). *Division Superintendents.* The development of public schools in any city or county will depend in large measure upon the division superintendent. Under the present arrangement, his leadership and influence form a determining factor, and under the rearrangement of local school administration proposed by this Commission, the importance of the office is enhanced. In practically any scheme of local control, the training, experience and devotion of the superintendent will largely fix the rate of school progress. If the teacher is the crux of the system, the superintendent is the key man.

The State Board of Education has made a beginning toward fixing the standards of qualifications required for efficient supervision. Even as a minimum basis these standards are too low. Table 115, showing the education and training of superintendents, indicates a fair degree of academic education, but not so favorable a standard in professional and administrative training.

The Commission recommends that the State Board of Education raise the qualifications for the position of division superintendent to a standard more nearly in accord with the importance of the service to be rendered.

The salary question, as it relates to division superintendents, is relatively almost as serious as in the case of school teachers. It is an actual fact that all of the division superintendents in the State combined receive less money for supervising the schools than is paid to treasurers for handling the school funds. If the amount paid treasurers is reasonably fair and proper, certainly the amount paid superintendents is entirely inadequate. This is a situation which should be remedied at once.

Table 116 shows that twelve superintendents receive less than \$1,000 and that more than one-half receive an annual salary of less than \$1,500. It is impossible for the State to

secure and hold the services of qualified men at the salaries now offered. In order to make the situation more discouraging there is a provision in the law against increasing the salary of a superintendent during his term of office. If the qualifications of superintendents must reach a standard somewhat in accord with the importance of the office, then certainly the scale of salary must be very materially increased. The method of computing the superintendent's salary, Section 626 in the revised Code, is illogical and unsatisfactory. The general population of a county is not the proper basis on which to calculate the salary. The number of schools to visit, the number of teachers to supervise, and the percentage of daily attendance, and related features are factors far more pertinent than population in determining the amount of work to be done, and in fixing its value.

Under the present plan, the relatively small salary fixed by the above section and paid by the State may be supplemented by the local council or board of supervisors or local school boards in accordance with Code, Section 1438, Code, 1918, Section 626. There is no definite requirement in the law that such a supplement must be made nor is there any legal limitation to the amount. The result is a wide difference in the total salaries paid superintendents of divisions requiring about the same amount of work. In fact, certain counties which need the most efficient supervision, render this difficult by providing only a small supplement to the salary.

Division superintendents, now appointed by the State Board of Education, must depend on local boards for over half their salaries. The way is open for the local board practically to nullify the action of the State Board by withholding the local supplement altogether. Again influence rather than professional equipment may determine the amount of the local contribution to the salary. The plan for providing the local supplement is about as unsatisfactory as the method of computing the State salary.

The salary of the division superintendent should be fixed by the State on some basis which would reflect the amount of work to be done, would produce desirable uniformity among divisions of relatively the same size, and at the same time would permit under limitations a margin to be fixed by local supplement.

The Commission recommends that Code 1918, Section 626, be amended to provide that the minimum salary paid any division superintendent employed for his full time be \$1,800, which salary shall be fixed for school divisions having an average daily school attendance of 1,500 or less, provided that in certain small cities or towns which constitute a separate school division, the superintendent may by the express permission of the State Board of Education act as principal of the high school, or undertake related school work, in which case not more than one-half the above minimum of \$1,800 shall be paid him as division superintendent, and provided further that no non-city or town shcool division shall be formed by the State Board of Education the average daily attendance of which is less than 1,200.

The division superintendent shall receive in addition to the minimum of \$1,800, twenty dollars per hundred for each hundred in average daily attendance over 1,500 up to and including 6,000, and for each hundred in attendance over 6,000, he shall receive ten dollars per hundred, allowing in each computation numbers in excess of fifty to count as the next higher even 100.

One-half of the salary thus determined shall be paid by the State Board of Education on vouchers drawn on the Second Auditor as other State school funds are paid, and the other half shall be paid by city or town councils or county boards of supervisors out of the general funds of the city or county, or by the school boards out of local school funds.

The local school board may, out of the local school fund, supplement this salary or provide for traveling and office expenses of the superintendent, provided the amounts and purposes for which the amounts are designed be reported to and be approved by the State Board of Education.

It is recommended that the provision in the Code, Section 626, that the salary of the division superintendent shall not be increased or diminished during his term of office, be rescinded.

(13). *Financial Support.* The most serious problem of public education in Virginia is to provide sufficient funds for the maintenance of efficient training and to adopt such a plan of administration and control as will guarantee the wisest and most

economical use of the funds. Up to this point, the Commission has dealt primarily with the latter phase of this problem. We now come to a brief treatment of the fundamental question of financial support.

Virginia undertook the tremendous task of public education when her treasury was depleted. The obligation was too great and pressing, however, to permit the weight of the burden to deter the undertaking. The beginnings of public education were rather crude and the financial basis of operation was limited. This narrow conception of the cost of education has to some degree endured to the present time. In earlier years, the people in Virginia who patronized private academies, had a practical means of gauging what good training cost. The minimum charge for tuition alone in the academies and seminaries of the State was \$90 per capita. Education is one of the great public concerns which experience has shown can be more economically administered by the State than through individual effort and initiative. There is a limit to the low cost under which the State cannot safely and judiciously go. After making all allowances for the economies which may be practiced through combined effort, it should not be seriously thought that the per capita cost of training can be reduced from \$90 to about \$11. The patrons of schools and the public generally should reflect very seriously on this matter in order that they may become more cognizant of what is a fair cost for good educational advantages. To attempt to carry on a system of education on a cheap basis is apt to produce a cheap sort of education. This, as urged heretofore, is a danger rather than a bulwark to democracy.

Chapter XXI of the report of the Survey Staff, Section ii, presents in forcible fashion the financial needs of the schools. Studious attention is called to this section. The amount needed for the school system may be estimated in a number of ways.

On the basis of the per capita cost of pupils enrolled, the important consideration is to determine what is a fair per capita cost. As shown above, the private system of education could under no circumstances devote less per capita for instruction than \$90 for nine months, or approximately \$10 per month. A number of school systems have attempted to maintain

instruction on a per capita as small as \$10 or \$12 per year. The failure to make anything approaching satisfactory provision on this basis indicates that such a minimum should not be seriously considered. Throughout the country as a whole, the per capita cost of instruction, based on average daily attendance, will average from \$25 to \$30; based on enrolment, from \$20 to \$25. If \$20 per pupil be allowed for teachers' salaries and \$30 be estimated to cover the entire cost of operating the schools, on the basis of 500,000 pupils, the total cost will be \$15,000,000.

The Survey Staff, making its estimate on the basis of aggregate days' attendance, and considering very carefully all the features of the problem, recommends for instructional purposes about \$10,000,000 and for all purposes, including operation and outlay, \$16,666,000.

It is possible to estimate this problem also on the basis of a unit of cost, said unit to be one teacher, one school room for thirty pupils, with an estimate of all items of expense for operation and maintenance.

If the teacher's salary be \$675 and all items of operation, such as cost of upkeep for the room, fuel, water, school supplies, *pro rata* amount of superintendent's salary, and all other expenses of control, etc., be about \$330, the unit cost will be \$1,000. It is estimated that 15,000 such units would be required for the efficient operation of the schools in Virginia, which would make a total cost of \$15,000,000.

From the various view points, then, it seems to be evident that the minimum estimate of the cost of an efficient school system in Virginia is \$15,000,000. The Survey Staff estimates \$16,666,000, which amount includes about \$1,500,000 for permanent outlay. The most important aspect of this problem is to devise the means of raising this sum. The Commission has already pointed out that approximately one-third of the total amount should be provided by State tax, and two-thirds by local taxation, one-half of the latter to be used exclusively to match the State appropriation in the payment of the salaries of teachers. In the discussion of teachers' salaries, the Commission has shown in some detail the only means of increasing the State aid for schools, namely, through an increase in the State tax from fourteen to twenty cents, and the most liberal possible increase in the cash appropriation bill.

The Survey Staff recommends that provision be made for State instructional funds to be determined annually or biennially on the basis of not less than eight cents per hundred of the aggregate days' attendance, seven-eighths of that fund to be set apart as a general instructional fund to be apportioned to all counties and cities, and one-eighth to be set apart as a special relief fund for aid to needy counties and cities. This plan would automatically provide for the expansion (or contraction) of the State school fund in accordance with the annually estimated needs of the schools. While the Commission believes that it would be extremely well to provide some automatic basis for increasing State funds, it is of the opinion that said funds should be raised by a fixed tax rather than by means of any variable. Automatic increases which may be necessary should be cared for primarily by the increase in local funds, and in a secondary way through the natural gain to be derived from the increase in property values.

The Commission recommends that the general State fund for instructional purposes be distributed to counties and cities and towns on approximately the following basis:

An amount not to exceed five per cent of the total fund to be used as a special relief fund. Of the remainder—

(a). One-third on the average daily attendance, or aggregate days' attendance;

(b). One-third on the number of teachers employed;

(c). One-third on the basis of the adequacy of the local support, according to regulations to be adopted by the State Board of Education.

Attention has already been directed to the possible change in local taxes, on the condition that the county become the unit of operation. Recommendation has been made that the local school board, elected by the people, should fix the amount of the local levy and that it be collected as other taxes by the board of supervisors. A great handicap to local development, is the constitutional maximum of five mills, which is entirely inadequate and which many of the counties of the State have expressed a strong desire to exceed. With this limit removed, the way would be open for the local boards to levy such taxes

as will be necessary to meet local needs. The board elected by the people as proposed, would have a constitutional right to lay the levy and would be held directly responsible for the wise expenditure of the school fund.

The Commission recommends that the constitutional amendment removing the five mill limit passed in 1918, be passed by the Assembly of 1920, and that provision be made for the earliest possible opportunity for the people to vote upon this amendment.

The Commission further recommends that the local school board be required to prepare and publish annually a definite and precise school budget as the basis for the levy to be fixed. This budget should exhibit separately the amounts for overhead and general control, for teachers' salaries and other items of instruction, for operation, for maintenance, for auxiliary agencies, and for capitalization.

It is the serious conviction of the Commission that the fundamental problem in adequate support to the State's institutions can be solved only by an increase and a fair equalization of property values over the State. The assessed valuation of property in too many instances bears little or no relation to the real or market values and the consequent returns from taxation are too small to support in adequate fashion our great public interests. The widest variations, too, are seen in the assessed values of the same class of property in the various sections of the State.

The recommendations of the Commission for the financial support of the schools are based on the assumption that property values shall be fixed on a fair and equitable basis, as required in the Constitution, otherwise the funds to be derived from taxation will not begin to meet the imperative needs of the public school system.

III.—OTHER AMENDMENTS

1. The Commission recommends that Code 1918, Section 703, be amended to provide that school boards may charge for high school pupils who come from beyond the county, or from outside the district so long as the latter remains the unit of administration, a tuition based upon the actual per capita cost.

The present limit of \$2.50 per month in some instances would force a district board to admit pupils from beyond the district at a lower tuition charge than those living within the district may be called upon to pay.

2. It is recommended that the State establish under the control of the State Board of Education an institution for mentally deficient children; that the School for the Deaf and Blind be operated as a part of the public school system and be placed under the administrative control of the State Board of Education; that the Reform School, located at Laurel, be converted into an educational institution with only secondary importance attached to its industrial features, and that it be placed under the control of the State Board of Education.

3. It is recommended that Code 1918, Section 615, be amended by striking out the provision that no public school fund shall be paid to any division superintendent of schools or district school trustee for the expenses of attending any educational conference of any kind whatsoever, except that the State Board may provide out of the school funds for the expenses of division superintendents for one conference per year to be held at some point in the State.

4. The Commission recommends a statute to provide that members of the State Board of Education shall receive a per diem of ten dollars in addition to an amount necessary to cover their actual expenses incurred by attendance upon the meetings of the State Board.

5. A statute is also recommended to provide that no degree can be conferred by any of the State institutions of higher learning unless such institution has been approved by the State Board of Education as meeting the requirements fixed for standard colleges.

The Commission in the foregoing report has presented for consideration only those matters which are considered to be of immediate importance. A number of other valuable recommendations are contained in the report of the Survey Staff. Many of these have been omitted from the Commission report not because the Commission is in disagreement with these

recommendations, but for the simple reason that we desire to emphasize a comparatively few matters of primary importance rather than to present a long list of suggested changes in the law.

Careful attention is invited to all the recommendations contained in the Survey Staff's report.

C. O'CONOR GOOLRICK.
G. WALTER MAPP.
BLAKE T. NEWTON.
CHARLES H. ROLSTON.
BESSIE P. TAYLOR.
CHARLES G. MAPHIS.
HARRIS HART, *President*.
FRANKLIN WILLIAMS, *Secretary*.

APPROPRIATIONS AND EXPENDITURES, VIRGINIA EDUCATION COMMISSION

Appropriation authorized to be expended by the
State Board of Education..... \$10,000.00

EXPENDITURES

Expenses of Commission.....	\$ 325.03	
Director of Survey Committee—Salary.....	4,500.00	
Director's traveling Expenses.....	488.27	
Field Staff.....	738.67	
Stenographers.....	809.00	
Clerical service.....	277.06	
Stationery, Printing, etc.....	183.14	
Postage, telephone and telegrams.....	58.48	
Miscellaneous expenses.....	80.11	
Total.....	\$ 7,459.76	
Reserved for printing report.....	2,540.24	
		\$10,000.00

DEPARTMENT OF TESTS AND MEASUREMENTS

Appropriation by the General Education Board of
New York..... \$12,500.00

EXPENDITURES

Salaries.....	\$ 5,366.67	
Traveling expenses of Staff.....	2,596.76	
Field Staff, stenographers, clerks, stationery, printing, postage, telephones, telegrams, etc...	3,042.58	
Total.....	\$11,006.01	
Reserved for printing report.....	1,493.99	
		\$12,500.00

B. REPORT OF THE SURVEY STAFF

CHAPTER I

PROBLEMS AND NEEDS OF EDUCATION IN VIRGINIA

NO system of public education can be properly interpreted or rightly understood except in its historical perspective and with due recognition of the topographic, social, economic and other factors which have given it its character and which must determine the lines of its development. This is particularly true of a State like Virginia with its eventful history, its peculiar topographic conditions, its social traditions, and its social and economic problems.

No attempt can be made here to trace in detail the influence of Virginia's social, economic, political, and educational history on the present status of her schools. Prior to the war between the States, Virginia had a history rich in tradition and events which profoundly affected education in the State and whose influences are still in evidence. Particularly noteworthy is the influence of a somewhat aristocratic and individualistic spirit which until recently resulted in a certain tendency to be sceptical of the value of public education and to oppose the extension of State supervision or control.

Free public education in its modern conception had its beginning in Virginia after the war between the States, the present system having been inaugurated in 1871. The war had left Virginia, even more than the other States of the South, with impoverished fortunes, with the tremendous social and economic problems of reconstruction, and with a system of education requiring almost complete reorganization. The period between 1871 and 1900 was a period in which the development of a system of public education was beset with almost insurmountable difficulties. Judges of education in Virginia and in the South should bear in mind constantly the brief period within which the school system had to be developed and the tremendous difficulties by which its development was conditioned. Short school terms, poor attendance, inadequate financial pro-

vision, and other unsatisfactory conditions were the natural and perhaps necessary results of factors over which the people of Virginia, until recently, had little control. Only within the past two decades has Virginia been financially able to move rapidly in the direction of a satisfactory system of public education.

i.—DISTRIBUTION OF POPULATION

In 1910 the population of Virginia was 2,061,612. The average growth per decade from 1880 to 1910 was approximately eleven per cent. There appears little reason to expect that for the State as a whole any extraordinary increase of population will complicate problems of education in the near future.

More significant than the size of the population is its distribution in various parts of the State. In Table 1 (A) are presented figures showing that in most parts of the State the population is small and scattered, and in Table 1 (B) are presented figures showing that nearly three-fourths of the counties of the State are one hundred per cent rural in the sense that all the population lives in the open country or in communities of less than 2,500 inhabitants. According to the Thirteenth Census three-quarters of the State was rural in 1910. Much less accurate but more recent figures indicate that about three-fifths of the estimated population live either in the open country or in communities of less than one hundred persons. (See Table 2.)

This sparse and scattered population in most parts of the State has several important results for education: (1) It makes extremely difficult proper provision for schools in many districts; (2) it necessitates the maintenance of a larger number of small one-teacher and two-teacher schools, especially in districts where mountain ranges (in the West) or rivers, creeks and swamps (in the East) isolate communities; (3) it emphasizes the importance of provision for school consolidation and the transportation of pupils; (4) it renders very difficult the maintenance of schools for negroes in some portions of the State, e. g., in the thirty-nine counties where there are ten colored persons or less of all ages to the square mile; (5) it emphasizes the importance in most parts of the State of provision for a form of education adapted to rural life.

It is true, of course, that the natural tendency to congregate in certain districts of a county makes these problems less difficult than might appear from the figures given for any county as a whole. Nevertheless, it remains true that in most parts of the State the sparse and scattered population creates serious problems for education, all the more because of the necessity of providing separate schools for white children and for colored children. The most difficult problems of education in any State are those of providing anything like equality of educational opportunity for children in rural districts. In Virginia, as in other Southern States, this problem is greatly increased by the necessity of providing a dual system of education for white and colored children. Critics of education in the State should bear in mind this fact.

ii.—THE RACIAL COMPOSITION OF THE POPULATION

In 1910 native whites of native parentage constituted 64.3 per cent of the total population of Virginia, and 95.4 per cent of the white population. Native whites of foreign or mixed parentage constituted only 1.8 per cent of the total population, and foreign-born whites only 1.3 per cent. Of the rural population native whites of foreign or mixed parentage constituted but 1.0 per cent of the population, and foreign-born whites only 0.8 per cent. For the urban population those proportions were respectively 4.5 per cent, and 2.9 per cent.

Of the one hundred counties in the State (excluding figures for cities enumerated in the census) forty-one contained each less than one per cent of combined native whites of foreign or mixed parentage and foreign-born whites, sixty-eight contained each less than two per cent of those combined groups, and only eight (mostly of a suburban character or affected by nearby cities) had each as much as five per cent of the population composed of native whites of foreign or mixed parentage and foreign-born whites combined. Seven cities (Alexandria, Newport News, Norfolk, Richmond, Portsmouth, Roanoke, Staunton) contained each a population of which five or more per cent was composed of whites of foreign or mixed parentage and foreign-born whites combined. Some of the purest native white stock in America is found in Bland, Buchanan, Carroll, Dicken-

son, Grayson, Scott and Shenandoah Counties, each of which has more than 95 per cent of the total population composed of native whites of native parentage.

It is clear that education in Virginia is little affected by the foreign element in its population, except possibly in a few cities and except as persistent social heredity affects educational standards and ideals in certain sections of the state.

On the other hand the distribution of population according to color creates problems of far-reaching importance for society and for education in Virginia. In 1910, according to the Federal Census, there were 671,076 negroes in the state out of a total population of 2,061,612, the per cent of negro population being 32.6, as compared with a per cent of 35.6 in 1900. At the time of the last federal census Virginia was the eighth state in the country in the number of negroes, and the seventh state in the proportion of negroes in the total population. The only other states having a larger proportion of negro population in 1910 were South Carolina, Georgia, Florida, Alabama, Mississippi, and Louisiana.

If the negro population were distributed evenly over the state the educational problems created would be somewhat less difficult than they are under existing conditions, where the great bulk of the negro population is concentrated in the region east and southeast of the Blue Ridge Mountains. The general distribution of negroes in the state may to be seen from the figures presented in Table 1 (C).

According to the school census of 1915 there were no colored children of school age in Buchanan County, one in Dickenson County, thirty-three in Craig County. In those counties there are no schools for colored children and none could be justified. At the other extreme we find Pittsylvania County with 6,147 colored children of school age and Norfolk County (exclusive of cities) with 9,444 colored children. Between those extremes are found all degrees and proportions of colored population. Obviously problems of negro education are radically different in different parts of the State.

iii.—OCCUPATIONAL FACTORS

A wide variety of occupational activities characterizes the economic life of Virginia. In such cities as Newport News,

Portsmouth, and Norfolk the shipping trades and their allied industries dominate the field. Suffolk is the centre of the peanut trade, Roanoke is a railroad city. Other cities have their peculiar industrial or trade activities. Districts bordering on the river mouths and on Chesapeake Bay are centers of the oyster and fish trade. Mining is the dominant industry in parts of the western mountain districts.

In Table 3 are presented figures showing the distribution of persons engaged in gainful occupations in 1910. From those figures it is clear that at that date Virginia was still primarily an agricultural State, forty-five per cent of all engaged in gainful occupations being engaged in agriculture.

Within the past few years the war activities have materially modified the economic situation in the eastern part of the State. How permanent the changes may be it is impossible to judge. In all probability increased industrial and trade activities will continue to dominate in a few centres. There can be little doubt, however, that agriculture will continue to be the main form of economic activity in most parts of the State.

Virginia is rich in natural resources, and is fortunately situated for purposes of commerce and trade. The development of those resources and the materialization of the opportunities for commerce and trade must depend in no small degree on the education which is provided to develop economic and social efficiency of Virginia's citizens. Unless Virginia is willing, through the education of her citizens, to develop a capital of intellectual, economic and social efficiency she cannot hope to compete with other States which may have less natural resources but have learned the economic value of a well supported system of education.

IV.—ILLITERACY

In 1910, according to the Thirteenth Census, 15.2 per cent of the total population, 8.2 per cent of the native white population, and 30.0 per cent of the negro population were illiterate in the sense that they could not read or write. At that time Virginia occupied the fortieth place among the forty-eight States with respect to the proportion of illiterates in the total population, forty-first place with respect to the proportion of

illiterates in the native-white of native-parentage population and forty-second place with respect to the proportion of illiterates in the negro population. (See Table 4.)

At the same time the per cents of illiteracy among children ten to fourteen years of age were 5.7 for white children of native parentage, 16.0 for negro children, and 9.2 for all classes, Virginia tying with Georgia for forty-second place with respect to illiteracy among white children of native parentage, occupying the fortieth position for illiteracy among negro children, and occupying the the thirty-ninth position for illiteracy among children of all classes ten to fourteen years of age. (See Table 4.)

Illiteracy is greatest in the rural districts where in 1910 one in every ten white persons, one in about every three negroes, and one in about every six of the total population could not read or write. Conditions in various districts vary greatly as may be seen from the figures presented in Table 5, eight counties having (in 1910) more than twenty per cent of the white population illiterate, ten counties having (in 1910) more than one-half of the negro population illiterate, and eighteen counties having (in 1910) more than fifteen per cent of children ten to twenty years of age illiterate.

Undoubtedly conditions of literacy have greatly improved since 1910. In Table 5 are presented figures showing the per cents of illiteracy in the counties of Virginia according to the State School Census of 1915 for children of ages seven to nineteen inclusive. Those figures are of very doubtful reliability, as for that matter are all figures for illiteracy.

According to the figures of the State School Census for children of school age 3.3 per cent of the white children, 8.5 per cent of the colored children, and 4.7 per cent of all children in the non-city districts of the State were illiterate in 1915. In the cities the corresponding figures were 0.5 per cent for white children, 5.0 per cent for colored children, and 2.0 per cent for all. For the State as a whole (counties and cities combined) the corresponding figures were 2.8 per cent for white children, 8.9 per cent for colored children, and 4.2 per cent for all.¹

¹ Figures for totals given in the Report of the Superintendent of Public Instruction, 1917-18, p. 102, are obviously wrong by misplaced decimals.

In all probability the figures in the Federal census and in the State School census have a wide margin of error because of the obvious difficulties of obtaining the true facts concerning illiteracy. The chances are great that these figures are too low.

Illiteracy in Virginia is undoubtedly still an important problem. Even greater, however, is the problem of near illiteracy. Where absolute illiteracy in the State is measured by its hundreds, near illiteracy as the result of very brief school attendance and very short school terms, is measured by its thousands. Mere ability to write one's name or to pick out words in the simplest newspaper article is practically of no greater value, as measured by the present needs, than absolute illiteracy. Near illiteracy as well as absolute illiteracy must be eliminated in Virginia.

V.—IMPERATIVE NEEDS

In the following chapters of this report are presented findings and recommendations concerning the public schools of Virginia. As an aid to their interpretation a brief statement here may be made of the principal needs at present imperative.

(1). *The School Term must be Lengthened:* In 1917-18 the length of the school term was on the average only 140 school days in the county schools and only 147 school days for all schools in the State. In some counties the average term was as low as 112 school days for white schools and 98 school days for colored schools. *A minimum term of 180 school days must be set as the standard for each school in the State.* (Chapter II.)

(2). *An Effective Compulsory Attendance Law must be Provided:* At present public school funds are in part all but wasted and children are losing their opportunities for education because of low enrolments and poor attendance. In 1917-18 more than one-third of the education provided was lost through poor attendance. The number of days' schooling actually received by children in Virginia was less than 100. The present "compulsory attendance" law is practically useless. *A real compulsory attendance law must be provided at once.* (Chapter III.)

(3). *Grading and School Organization must be Improved:* At present in the non-city districts of Virginia the grading (*i.e.*, the

distribution of pupils by grades) is in general very defective and in many rural schools cannot be described as other than chaotic. Pupils enter school at any age from five to ten, apparently according to their own caprice or the whim of their parents. Once in school their progress is extremely irregular so that there is little correlation between their grade in school and their age or length of enrolment. *The present situation in non-city districts must be remedied (a) by proper attendance laws, (b) by provision for better teachers, (c) by better school organization.* (Chapter IV.)

(4). *Better Trained Teachers are Needed:* At present in Virginia the teaching force is relatively unstable, teachers in general are not trained for their tasks, and the pay of teachers is lower than that of unskilled labor. *The most imperative need of public education in Virginia is provision for well trained and well paid teachers.* (Chapters VII to IX.)

(5). *Improvements are Needed in the Program of Education Provided:* At present important forms of education are sadly neglected. This is particularly true of practical arts or vocational education and of physical education. The elementary school program, in rural schools particularly, is very limited in its actual scope and the high schools provide a program almost exclusively academic. *Provision must be made for an expansion of the instructional program.* (Chapters V, XI and XII.)

(6). *Consolidation must be Increased:* Approximately 80 per cent of all the schools of Virginia are at present one-teacher or two-teacher schools and more than one-half of all pupils are attending such schools. Beyond question the peculiar topographic conditions of the State and the distribution of population will always necessitate a large number of one-teacher and two-teacher schools. Nevertheless the present number can and should be greatly reduced in the interests of the children enrolled. *School consolidation must be greatly increased in Virginia.* (Chapters XV and XVI.)

(7). *The School Plant must be Improved:* In some parts of the State excellent provision is made for school buildings, school grounds, and equipment. In general, however, there is great need for improvement in the selection of sites, in the construction of buildings, and in the physical equipment. In

many districts (unfortunately not few) the school plant cannot be described otherwise than as disgraceful. *Measures are needed for improvement in the construction and care of the school plant.* (Chapter XVII.)

(8). *Better Supervision must be Provided for Rural Schools.* (Chapter XIV.)

(9). *State and local systems of Administration must be Changed:* The present forms of State and local organization and administration are not in conformance with accepted standards or the best practice. In the judgment of the Survey Staff the proper development of public education in Virginia demands a thorough reorganization of the system of administrative organization. (Chapters XVIII, XIX, and XX.)

(10). *The financial support of Public Schools must be greatly Increased:* There is no possibility of effective education in the public schools of Virginia on the basis of present financial support. *Not less than a seventy-five per cent increase can suffice to place education in Virginia on a footing equal to the national average.* (Chapter XXI.)

(11). *The methods of raising and distributing school funds must be changed:* Present methods of raising and distributing school funds in Virginia are very defective and in some cases defeat the very ends which they are intended to accomplish. (Chapter XXI.)

CHAPTER II

THE SCHOOL TERM IN VIRGINIA

IT is obvious that a fundamental problem involved in determining the efficiency of any system of public schools is that which concerns the amount of education provided for and received by the children for whom the schools are maintained. In succeeding chapters is considered the amount of education *received by* the children of Virginia. In this chapter is considered the amount of education which is *provided for* them, as far as that may be measured by the length of the school term.

The school term (i.e., the length of time that schools are open during the school year) is noticeably shorter in Virginia and throughout the South than in other parts of the country. According to the latest available reports of the United States Bureau of Education (1915-16) the average length of the school term in Virginia was 141 days, as compared with a national average of 160 days, a North Atlantic States average of 182 days, a North Central States average of 167 days, a Western States average of 168 days, a Southern States average of 135 days, and a "standard" term of 180 days. At that time Virginia's rank was thirty seventh among the forty eight states, all with lower records being southern states.

In the cities of Virginia the average school term is approximately of standard length (nine months) and compares favorably with that in other parts of the country, but in the counties the average length of the term for white schools is about seven and one-third months (147 school days) and for colored schools is about six months (120 school days). In Table 6 are presented figures showing the number of counties having various averages for the length of the school term in 1917-18. In that year one-half of the hundred counties of the State kept their white schools open on the average less than seven and one-third months and their colored schools less than six months. For one-room and two-room schools the corresponding figures were six and one-half months for white schools and five and nine-tenths months for colored schools. In more than one-third of the counties

the county-wide averages for the school term were seven months or less for white schools. For one-room and two-room white schools the county-wide averages were six months or less in one-third of the State. For colored schools of the same classes the county-wide averages were six months or less in three-fifths of the State.

It is to be noted that the figures given in Table 6 represent county averages, not the records for individual schools. Naturally some schools have better records and naturally some schools have even worse records. In Table 7 are presented figures for 748 non-city white schools and 230 non-city colored schools. Of those white schools sixty-five (nearly nine per cent) had school terms of five months or less. Of the colored schools nearly one-third had school terms of five months or less, and about two-thirds had school terms of only six months or less in 1917-18. Obviously "average" records are very misleading.

Figure 1

*Showing the population of non-city schools having in 1917-18
school terms of various lengths*

See Table 7

WHITE NON-CITY SCHOOLS



COLORED NON-CITY SCHOOLS



Schools with terms of five months or less.



Schools with terms of 5.1 to 6.0 months.



Schools with terms of 6.1 to 7.0 months.



Schools with terms of 7.1 to 8.0 months.



Schools with terms of more than eight months.

The significance of the short school term may be made clearer if we estimate the time it would take a pupil in a short-term school to secure the time equivalent of a full school course with

a standard school term. A pupil who attended faithfully and availed himself of the entire course offered in a school whose term is six months would require more than sixteen years to secure the time equivalent of eleven grades of education in a school having a nine-month term—and if he entered school at the age of seven he would be twenty-three years old when that school education was completed. Yet an eleven-grade course with a nine-month term is only the accepted standard for the better schools of Virginia. If the same pupil expected to meet the time equivalent of the twelve-grade course with a nine-month term found in most parts of the country, he would require eighteen years and would be twenty-five years of age at its completion.

Let not the absurd assumption of such a procedure obscure the seriousness of the situation in Virginia. It is true that no pupil would ever follow the procedure indicated. It is also true, however, that in many schools of Virginia the pupils can never receive the equivalent education and it is equally absurd to suppose that pupils can ever receive an adequate education in short-term schools.

In this connection it may be noted further that Virginia not only has a short school term, but also, following the Southern practice, provides an eleven-grade school course, in contrast with the twelve-grade course which is the standard in all other parts of the country. The general problem of school organization is considered later in this report. It may be observed here, however, that the combination of a short school term and a short school course increases the time discrepancy between the education offered in Virginia and that offered in the North or West. For example, in Virginia the average school term of seven and one-half months and the eleven-grade course gives an average total educational offering of sixty-eight school months (1,360 school days). This may be contrasted with a Northern Atlantic States average school term of nine months and a twelve grade school course, with a total educational offering of 108 school months (2,160 school days), or with a total educational offering of ninety-nine school months (1,980 school days) provided in most cities of Virginia with a nine months term and an eleven-grade course.

The evils of the short school term and the gross inequalities of educational opportunity caused thereby have not gone with-

out recognition by the educational leaders of Virginia. During the past fifteen years determined and partially successful efforts have been made to lengthen the term, with the result that the State-wide average has been raised from six months in 1900 to nearly seven and one-half months in 1918.

At the last (1918) session of the General Assembly a special appropriation of \$680,000 was made with the stipulation, among others, that it should not be apportioned to any county or city unless the schools were conducted for a term of not less than seven months, or for a period at least twenty days (one school month) longer than the term for the previous session, or for a period satisfactory to the State Board of Education. That law would undoubtedly have improved conditions materially, if it had not been for the epidemic of influenza.

Many improvements in educational conditions can be brought about only gradually as the quality of teaching is improved, complex forms of administration organized, or new methods developed. Lengthening the school term does not belong to that class of improvements. The sole element involved is the increased pay for teaching for a longer period. It is just as easy to take that step at once as by gradual stages. It is inevitable sooner or later and delay can only mean the continued loss of educational opportunity for the children of Virginia.

One point only needs further emphasis. Increasing the average length of the school term for the State or for any county or district does not in the least benefit the children whose misfortune it is to attend a school whose term remains short. The practice of lengthening the terms of town schools at the expense of outlying schools of the same district is thoroughly vicious. Such practice is not uncommon in Virginia. Equally vicious is the practice, obtaining in some schools, of having a nine-months term for the high-school grades while elementary grades of the same schools are provided a term shorter by a month or more. Nothing short of a universal nine-month term for all schools and all grades should be permitted.

RECOMMENDATION

That a nine-months term be adopted as the minimum standard for all public schools and that provision be made for the attainment of that minimum standard through the methods adopted for the apportionment of State funds. (Chapter XXI).

CHAPTER III

SCHOOL POPULATION, ENROLMENT AND ATTENDANCE

IT has been shown in the preceding chapter that the amount of education provided for children in Virginia is, for the State as a whole, seriously limited. The next problem is: How many and what proportion of children of school age receive the benefits of the education which is provided? Here we may consider four topics: (i) the school population; (ii) the school enrolment; (iii) school attendance; (iv) compulsory attendance.

I.—SCHOOL POPULATION AND THE SCHOOL CENSUS

In its most general sense school population means the number of children of those ages at which children should be in school, with or without legal provision. Legally and technically it means the number of children whose ages fall within the limits which the law sets to determine the classes of persons to whom the public schools are legally open.

All but four states in the country set some legal limits to the ages of children to whom the schools are open. The lower age limit is set at four in three states, at five in thirteen states, at six in twenty-five states, and at seven in three states (including Virginia). The upper age limit is set at 16 in five states, at 17 in one state, at 18 in seven states, at 20 in seven states, and at 21 in twenty-four states. The standard employed by the United States Bureau of Education is 5 to 18 years inclusive.

Virginia is the only state in the country basing the school census and estimating the school population on the number of children of ages seven to twenty (seven to nineteen inclusive). For practical school purposes in Virginia or elsewhere such figures are of little value except in the most general way. As a matter of fact in the schools of Virginia at present there are more children five years of age than of ages eighteen and nineteen taken together, and there are more than twice as many pupils six years of age than of all ages above sixteen combined.

By an act of 1914 the public schools of the State are "free to any child six years of age, provided that in the opinion of the teacher and the division superintendent the said child shall have reached such a stage of maturity as to render it advisable to permit him to enter school." In eighteen counties, intensively investigated, the number of six-year-old white pupils was seventy per cent as large as the number of pupils seven years of age, and the number of pupils under seven years of age (five and six combined) was nearly eighty-five per cent as large as the number of seven-year-old pupils. In the cities of the State the corresponding figures were seventy-eight per cent and one hundred twelve per cent. Since the number of seven-year-old pupils in school includes many who entered at the age of five or six, the figures at our disposal warrant the assumption that approximately as many children enter school at the age of six, or even younger, as enter at the age of seven. In the cities of Virginia there are actually nearly one-third more white children six years of age than seven years of age in the first grade and one-third as many children five years of age. Six-year-old children should certainly be included in the State school census, and probably five-year-old children should also be included, if for no other reason, because an enumeration of children five years old would permit intelligent estimates of children who should enter school within a year.

On the other hand, the inclusion of nineteen-year-old persons in the school census is practically useless and has little reference to the actual school situation, except for a totally indefensible practice of apportioning funds on the basis of school population.¹ Of nearly fifty thousand white children enrolled in the schools of eighteen counties only 235 (less than one-half of one per cent of the total enrolment) were nineteen years of age. Of nearly sixty-five thousand white children enrolled in city schools only 142 (about one-fifth of one per cent of the total enrolment) were nineteen years of age. For all practical

¹ At present the State Constitution provides that State school funds shall be "apportioned on the basis of population; the number of children between the ages of seven and twenty years in each school district to be the basis of such apportionment." Unquestionably that section (135) of the Constitution should be amended at the earliest opportunity.

purposes it would be far better to interpret "school age" and estimate the school population on the basis of ages five to eighteen inclusive, in accordance with the standard of the Federal Bureau of Education, and more nearly in accordance with the actual school situation

Section 653 of the Revised Code provides for a census every five years of all persons between the ages of seven and twenty years residing within each school district, that census to be taken by the district clerk, who receives compensation at the rate of three dollars per hundred of the children listed by him. The relation of that census to the apportionment of funds is considered in a later chapter of this report.¹ Here it is pertinent only to note certain other matters relating to the school census: (a) As suggested above, the enumeration of children of ages seven to nineteen inclusive has little relation to the facts or problems of school enrolment and attendance. The census provisions should be changed so as to enumerate children of ages five to eighteen inclusive, the latter age being set because children normally complete the high-school work at that age. (b) To be of real value the school census should be made cumulative and continuous through annual or, at least, biennial correction. Important changes may take place in the school population of some communities within a five-year period set at present; e. g., during the past two or three years in Norfolk, Portsmouth Newport News, Hopewell, and Petersburg. (c) The school census should be made to include much more than an enumeration of children of different ages and the number of illiterates; e. g., it should include statistics concerning the amount of schooling received, distance from the nearest school, etc. (d) To be of greatest value, the school census should be so conducted as to enable school officers to carry over directly into the school field the valuable information gained. In the absence of a State census bureau, the school census should be under the direction of the division superintendent. (e) There is reason to believe that the present system in some districts is conducted in a more or less perfunctory and inefficient fashion, invites the conscious or unconscious padding of returns, and produces statistics which are of somewhat doubtful reliability.

¹ (Cf. Chapter XXI.)

ii.—SCHOOL ENROLMENT IN VIRGINIA

In view of the discrepancy between the age groups enumerated in the state school census and the actual ages of enrolment, it is difficult, if not impossible, to determine accurately what proportions of children of "school age" are enrolled in the schools of Virginia. This difficulty is increased by the fact that the basis of the school census was changed by the adoption of the new State Constitution in 1902 from persons of ages five to twenty inclusive to persons of ages seven to nineteen inclusive, so that any attempt to trace the development of enrolments in relation to school population is still more complicated.

In 1910 (according to the Federal Census) Virginia occupied a position in the lowest sixth of the states with respect to the proportion of children in school, her rank for the per cent of children six to twenty years of age in school being forty-third, for children ten to fourteen years of age in school being fortieth, and for children six to nine years of age in school being forty-fifth. For the per cent of children fifteen to twenty years of age in school her rank among the states was twenty-fourth. Figures from the Federal Census concerning enrolment in Virginia in 1910 are presented in Table 9.

Improvement after 1910 has been noticeable, but the situation is still far from satisfactory, according to the latest comparative statistics published by the Federal Bureau of Education, as shown in Table 10. From those figures it appears that in 1915-16 Virginia occupied the thirty-fourth place among forty-eight states with respect to the per cent of children five to eighteen years of age enrolled in school, having a lower rate of enrolment than any Southern state except Alabama and Louisiana in 1915-16. Finally a late bulletin issued by the Bureau of Education indicates that among forty-four states considered Virginia occupied the thirty-eighth place with respect to the per cent of children five to eighteen years of age in schools.¹

In Tables 11—12 are presented figures indicating the relation of school enrolments to the total population (more reliable figures) and to the school population (less reliable figures for

¹ Bulletin 1919, No. 4, p. 25.

children of ages seven to nineteen inclusive) at different periods from 1890 to 1918. From those figures (based on statistics of the State Department of Education) it appears that for white children the ratio of school enrolment to the school population and to the total population declined from 1890 to 1910, rising by 1915 or 1918 to a point noticeably above the record for 1890. The ratio of white enrolment to the total white population in 1890 was 21.6 per cent, in 1910 was 20.3 per cent, in 1915 was 23.1 per cent, and in 1918 was 22.6 per cent—a noticeable improvement from 1910 to 1915. Corresponding ratios of white enrolment to white school population were 75.3 per cent in 1890, 70.9 per cent in 1910, 78.8 per cent in 1915, and 75.3 per cent in 1918. For colored children the ratio of school enrolment to the total population declined from 19.3 per cent in 1890 to 17.8 per cent in 1910, and by 1915 or 1918 had barely recovered its 1890 status. Similarly the ratio of colored school enrolment to colored school population declined from 59.2 per cent in 1890 to 54.5 per cent in 1910, and by 1915 or 1918 had scarcely recovered its 1890 status.

The improvement since 1910 is noteworthy and commendable. Virginia in the past decade has been moving in the right direction. Nevertheless, it must be recognized that children are not brought into the schools and retained there in satisfactory fashion. That cities of the State show a fairly satisfactory record under conditions none too favorable—the absence of really compulsory education. For the State as a whole, however, enrolment in the public schools will never be satisfactory until some effective form of compulsory attendance shall bring children into school at the proper age and retain them there for a period of time more nearly meeting the demands of an adequate education.

iii.—SCHOOL ATTENDANCE IN VIRGINIA

The *potential amount* of education available for children is determined in large part by the length of the school course and by the length of the school term. The *actual amount* of education received by children is conditioned by the proportion of children enrolled and also by the regularity or irregularity of their attendance. On the one hand, the shortness of a school



"All Dressed Up and Nowhere to Go"—Nearest school 8 miles. Appomattox County.



Richmond-Washington Highway. Stafford County.



Agricultural High School—School Wagon. Appomattox County.

SOME FACTORS IN SCHOOL ATTENDANCE.

course and of school terms may be offset to some extent if attendance is regular. On the other hand, a school course of adequate length and long school terms, even with high rate of enrolment, may be offset by irregularity of attendance. We may consider here the character of attendance in Virginia.

In Table 12 are presented figures showing the average daily attendance for various periods from 1890 to 1918 and the relation which the average daily attendance bears to the school enrolment at different dates. From those figures it appears that the ratio of daily attendance to school enrolment for whites has increased from 59.0 per cent in 1890 to 62.4 per cent in 1910 and to about 67 or 68 per cent at present. Likewise it appears that for negroes that ratio has increased from 56.0 per cent in 1890 to 61.1 per cent in 1910 and to about 63.0 per cent at present.

Notably significant is the fact that at the present time for every day in the school year approximately one-third of the children enrolled in the schools of Virginia are absent. It follows that, on the average, children actually enrolled lose approximately one-third of the education provided. Virginia's record in this respect is somewhat above the record for the South Atlantic States but far below the record for the United States as a whole. Thus it appears from the figures presented in Table 10 (and the source from which they were taken) that in 1915-16 the number of pupils attending daily for each one hundred children enrolled in Virginia was 69.8, as compared with 69.4 in the South Atlantic States, 66.6 in the South Central States, 80.7 in the North Atlantic States, 80.4 in the North Central States, 76.2 in the Western States, and 75.5 in the United States, Virginia occupying the thirty-fourth position among the states of the country in this respect. It also appears that the average number of days attendance for each child of ages five to eighteen was in Virginia 71.9, in the South Atlantic States 71.6, in the South Central States 67.4, in the North Atlantic States 105.5, in the North Central States 104.1, in the Western States 107.7, and in the United States 91.7, Virginia's rank among the forty-eight states being fortieth. Finally, it appears that the average number of days attended by each pupil enrolled was 98.4 in Virginia, 93.8 in the South Atlantic States, in the South Central

States 90.0, in the North Atlantic States 146.6, in the North Central States 134.4, in the Western States 127.8, and 120.9 in the United States, Virginia's rank among the forty-eight states in this respect being thirty-fifth.

Naturally in some parts of the State attendance is much better, in others much worse, than the average for the state as a whole would indicate. In the cities the attendance is much better than in the rural districts. In Table 13 are presented figures showing the situation in the non-city schools of Virginia. There very great variability is noticeable. In eight counties of the State the county-wide averages for the attendance of white pupils enrolled are between fifty-one and fifty-five per cent, which means that in those counties on the average nearly one-half of the available schooling is lost through poor attendance by white children actually enrolled. Likewise in sixteen counties colored pupils through poor attendance lose more than one-half of the meagre schooling available, and in nearly one-third of the counties of the State colored children through poor attendance lose approximately one-half or more of the schooling provided.

For individual schools in some cases conditions are still worse. In Table 14 are presented figures showing the per cents of attendance in 1917-18 for 624 white rural schools and 218 negro rural schools particularly investigated. Those figures show that more than one-fifth of the white schools and more than one-quarter of the colored schools in rural communities have a record for attendance of fifty per cent or less of the enrolment. The fact that many other schools have relatively high rate of attendance does not in the least benefit children in the poorer schools, however much it may help to give a better average record.

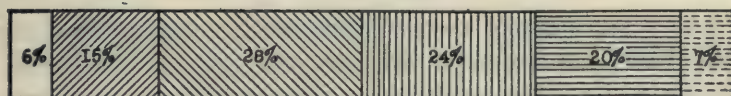
Summarizing our consideration of attendance we may say that it is unsatisfactory for the State as a whole, that the county-wide average in some counties makes effective education absolutely impossible, and that in some communities the schools might just about as well be closed as attempt to provide education under the conditions of attendance. Visits to over a thousand schools in various parts of the State have made it clear to the Survey Staff that the figures given do not belie the facts of the case.

Figure 2

Showing proportions of non-city schools with various percentages of attendance in 1917-18







See Table 14

WHITE NON-CITY SCHOOLS



COLORED NON-CITY SCHOOLS



-  Schools having an attendance rate of less than 40 per cent.
-  Schools having an attendance rate of 41 to 50 per cent.
-  Schools having an attendance rate of 51 to 60 per cent.
-  Schools having an attendance rate of 61 to 70 per cent.
-  Schools having an attendance rate of 71 to 80 per cent.
-  Schools having an attendance rate of over 80 per cent.

In this connection it is to be noted that the damage done to education by irregular attendance is not to be measured merely by the time lost through absence. Irregular attendance not only causes the loss of the time of absence but disorganizes the work of the entire school to an extent seldom if ever realized by one not well acquainted with school work. An immediate effect is that well-organized instruction is impossible when any large proportion of a class is irregular in attendance. An ultimate result is for the individual an education shortened by poor attendance and for the school a congestion of pupils in any one class, heterogeneous in maturity to an extent which renders instruction extremely difficult if not impossible. It is readily recognized that irregular attendance is the most frequent and potent cause of retardation.

The only successful remedy for poor and irregular attendance in other states has proven to be an effective compulsory attendance law. This must be provided in Virginia.

iv.—COMPULSORY ATTENDANCE

Every State in the country has found it necessary to make some kind of provision for the compulsory attendance, though the age limits vary.

The lower age limit is set at seven in twenty States, at eight in twenty-seven States, and at nine in one State.

The upper limit is set at twelve in three States, at fourteen in nineteen States, at fifteen in fourteen States, at sixteen in eleven States, and at eighteen in one State.

The number of years covered is four in two States, five in one State, six in ten States, seven in fifteen States, eight in fifteen States, nine in four States, and ten in one State.

The amount of attendance required by law in a school term is a "full school year" in thirty States, six months or more in four States, four months or more in ten States, less than four months in four States.

What is the situation in Virginia?

The State Constitution (Section 138) provides that "The General Assembly may, in its discretion, provide for the compulsory education of children between the ages of eight and twelve years, except such as are weak in body or mind, or can read and write, or are attending private schools, or are excused for cause by the district school trustees."

In 1908 the General Assembly passed a law providing for the compulsory attendance of pupils between the ages of eight and twelve years except under certain conditions "provided, however, that the provisions of this act shall not apply in any county, city, or town of this Commonwealth except and until the qualified voters of such county or city or town shall, as hereinafter provided, avail themselves of the provisions hereof." In other words the law provided for local option in the matter of compulsory attendance for children of ages eight to twelve.

This act proving ineffective, the General Assembly passed a law in 1918 containing the following provisions:

Every parent or guardian or other person having control of any child between the ages of eight and twelve is required to send such child to a public school for at least sixteen weeks in each school year, which attendance shall commence at the beginning of the school term and shall be as nearly continuous as possible. A child weak in body or mind, or able to read and write, or in attendance upon a private school, or living more than two miles from a public school, or more than one mile from a wagon route, or who is excused for cause by the district board, is exempted from the provisions of the Act. District school boards shall, within fifteen days after the schools open, ascertain the condition of children between eight and twelve who are not attending school, and shall report all violations of this Act to the division superintendent who shall at once prosecute each and every offense. The superintendent shall make careful investigations of the facts in the case of non-attendance, and when no valid reason is found, shall give written notice to parent or guardian at the usual place of residence, which notice shall require the attendance of the child at the school named in the notice within seven days.

For non-compliance, the superintendent shall make complaint before a justice of the peace or police justice of the district or city in which said parent or guardian resides, or in the corporation or circuit court of the city or county. Non-compliance with the provisions of this Act is a misdemeanor and the parent or guardian is liable to a fine not exceeding \$20 for each offense. It is provided that the clerk in each district shall report to the superintendent every offense against the Act when a member of the district school board or any citizen of the district files with him an affidavit setting forth the offense, and if the said clerk neglect so to report within fifteen days after such affidavit is filed, he shall be liable to a fine of not less than five nor more than ten dollars for each case of neglect.

Two weeks' attendance at half time or evening schools shall be considered the equivalent of one week's attendance at day schools.

The school board of any city shall have the right to appoint a truant or attendance officer to perform the duties required under the Act of the clerk of the district board and the division superintendent.

This law is very defective and, even if well enforced, could never materially improve present conditions. Its principal defects are considered below.

(1). Virginia shares with North Carolina the honor (?) of having its compulsory attendance law cover the lowest range of ages (four years) among the States of the country. The minimum range should cover a period sufficiently long, at least, to equal in years the number of grades provided in the elementary school. Virginia cannot afford to provide her children with less than a complete elementary-school education.

(2). The lower age limit of eight years is found in more than half of the States of the country as well as in Virginia. There are many reasons, however, why the age of eight should be

considered too high for the lower limit of compulsory attendance. Pupils should begin their schooling at the age of six in most cases and that is the common entrance age in most of the better school systems. By the age of seven certainly all children of normal health and mentality should be compelled to attend school. The compulsory attendance period should begin not later than the age of seven in Virginia.

(3). Only three States in the country (Virginia, North Carolina, and Kentucky) set the upper limit of compulsory attendance below the age of fourteen. That age should be the minimum upper limit because: (a) a child entering school at the age of six or seven and progressing normally will complete the elementary-school course at that age; (b) children should not leave school until they are prepared to enter on the earning of their livelihood and the employment of children under the age of fourteen is a form of industrial exploitation not to be permitted; (c) the State child labor law forbids the employment of children under the age of fourteen in industrial or other gainful occupations, and forbids their employment under the age of sixteen unless they have received an employment certificate.

(4). For children of ages fourteen or under nothing less than regular attendance for the full school year can be considered at all satisfactory, due allowance being made, of course, for excusable absences due to illness, etc. Neither industrial exploitation nor parental exploitation for work on the farm and at home should be permitted to rob the child of his legitimate education and destroy the work of the schools. No child can secure an education by attending school eighty out of three hundred and sixty-five days in the year. Nor can any school be administered with any degree of effectiveness when the attendance of pupils is irregular.

(5). The exemption of children "able to read and write" practically negates the entire force of a compulsory attendance law, partly because the requirements of ability to read and write represents a degree of educational achievement barely above the level of illiteracy, and partly because that provision of the law affords a loop-hole through which almost any child nine or ten years of age may escape.

Beyond question one of the greatest educational needs of Virginia is a really effective compulsory attendance law. In the recommendations made below the reforms needed are specified.

RECOMMENDATIONS

1. That for purposes of the school census school age be defined as five to eighteen inclusive,¹ and that school population be estimated on the basis of the number of children of those ages.

2. That the school census be taken annually in cumulative and continuous fashion through the office of the division superintendent and under his direction. That census should provide a card index of every child of school age in the county or city in duplicate on a uniform card provided by the State Department of Education, one copy of each card to be on file in the office of the county or city superintendent, the other on file in the school which the child attends. The card should contain data including the following: (a) name of child, (b) sex, (c) age and date of birth, (d) name of parent or guardian, (e) address of parent and child, (f) school attended, (g) reason if not attending school, (h) distance from nearest school. Only additions and corrections need be made annually.

3. That the State Constitution be amended by striking out the compulsory attendance provision of section 138, and that the compulsory attendance law of 1918 be amended: (a) so as to provide for the compulsory attendance of children of ages seven to fourteen; (b) so as to provide for the compulsory attendance of children of ages fourteen to sixteen unless lawfully employed and unless holding employment certificates; (c) so as to provide that children of ages fourteen to eighteen be required to attend part-time continuation schools wherever and whenever such are maintained; (d) so as to provide for compulsory attendance throughout the school year; (e) so as to eliminate exemption on the basis of ability to read and write; (f) so as to provide that exemptions for physical or mental disability shall be granted

¹ In a later chapter of this report it is recommended that the constitutional provision for the apportionment of State funds on the basis of the number of children of ages seven to nineteen be amended. (Cf. Chapter XXI.)

by the county or city school board; (g) so as to provide that children in non-public schools shall be compelled to meet the same requirements for attendance as children in public schools; (h) so as to provide that county school boards shall be empowered to employ attendance officers (usually employing the part-time service of the local constables); (i) so as to require each city board to employ at least one attendance officer, whose duty it shall be to assist the city superintendent and city school board in the enforcement of the compulsory attendance law.

CHAPTER IV

PROGRESS OF PUPILS IN THE SCHOOLS

UP to this point we have considered the amount of education available for children in Virginia, the number of children enrolled, and the character of their attendance. We may now consider the progress of children in the schools. Here several problems deserve attention: (i) Up to what age do pupils remain in school? (ii) How many years do they remain? (iii) How far do they progress in the school course? (iv) How regularly do they progress? (v) How are they grouped in different parts of the course?

i.—UP TO WHAT AGE DO PUPILS REMAIN IN SCHOOL?

It is very difficult to determine the exact proportions of children of various ages attending school at present in Virginia. The latest Federal Census gives figures for the situation nearly a decade ago which cannot be employed to illustrate the present situation. Neither the latest State school census (1915) nor the records of the State Department of Education provide satisfactory data.

In Table 15 are presented figures showing relative numbers and per cents of pupils of various ages in the schools of eighteen counties and all cities of Virginia in 1918-19. Those figures do not indicate the exact proportions of children of various ages in school, since the common assumption is false that the number of children of various school ages in any state, or for that matter in the United States, is about the same. Nevertheless, it is probable that the figures given in the table show roughly approximate proportions and suggest certain general truths about the proportions of pupils of different ages in the school. Those general facts may safely be summarized as follows:

(1). The figures indicate that children remain in school fairly well up to the age of thirteen, but drop out rapidly after

that age, the proportion fifteen years of age being about one-half as large as the proportion eight, nine, ten, or eleven years old.

(2). In all probability considerably less than one-half of the children remain in school up to the age of sixteen.

(3). There is no very significant difference between the proportions of white children and the proportions of colored children remaining in school up to various ages until the age of fourteen is reached, after which age larger proportions of white children remain in school. This fact has bearing on the assumed affect of a compulsory-attendance law on the problem of negro schools.

(4). Here in Virginia is observable the fact, almost universally true throughout the country, that non-city children tend to remain in school to a later age than do city children. The important reason for this is, of course, the more numerous and stronger influences of industry and trade operating to eliminate children from school in the city.

These same tendencies are observable if we employ another method of estimating the ages up to which pupils tend to remain in school. From Table 15 it appears that the largest age groups in the schools are those of children eight, nine, ten, and eleven years of age. By those ages most children are attending school. An average of the number of pupils of those ages gives us a roughly approximate estimate of the average number of pupils belonging to each age group and we may estimate school attendance for various ages roughly on the basis of the proportions each age-group in the school is of that theoretic age group. Employing this method we get practically the same suggestions as were afforded by the figures in Table 15. Figures are given in Table 16.

ii.—HOW LONG DO PUPILS REMAIN IN SCHOOL?

Since pupils enter school at various ages it is important to know not only up to what age they remain in school, but also how many years they tend to remain. In Table 17 are presented figures showing the relative numbers and per cents of children who have been in school (including the present year) various

lengths of time in the schools of eighteen counties and all cities except Richmond. Those figures can give a rough indication only of the proportions of children who remain in school for various lengths of time. However, it may be noted that for each class of schools the proportion of children who have attended school for nine years is less than one-half as large as the proportion of children who have attended school one, two, three, four, five, or six years, while the proportions of children who have attended school for eleven years (the standard time for the completion of the full school course) is much less than one-sixth as large as the proportion of those who have attended school for one, two, three, four, five, or six years.

More direct indications of the number of years children tend to remain in school in Virginia may be found in the figures presented in Table 18 where estimates are made of the per cents of pupils who have remained for various lengths of time on the basis of the average of the numbers who have attended school for one, two, three, and four years. From those figures it appears likely that:

(1). All but a few white pupils remain in school for five years and all but a few colored pupils remain for four years.

(2). After the fifth year of school attendance white pupils begin to drop out of school in fairly large numbers until more than one-quarter have left school after seven years of attendance. For colored pupils, dropping out begins sooner and proceeds more rapidly, more than one-half remaining not more than seven years.

(3). Approximately one-eighth of the white pupils and one-twentieth of the colored pupils remain in school for eleven years (not eleven grades)—the assumed regular time period for the completion of the eleven-grade school course.

The importance of the facts disclosed above may be seen from the following considerations: (a) It is universally recognized that after the age of about fourteen is reached numerous forces tend more and more strongly to draw children out of the school. Hence it is important that children receive as much education as possible before they reach the ages when economic and social forces exert their strong pressure for elimination.

This means that children should enter the school at as early an age as is consistent with the best interests of the children and the proper management of the school system. (b) Closely related to this is the fact that until and unless conditions are very much changed the schools cannot count on retaining many children in attendance for more than eight or nine years at most. Hence it is important that they should progress through the grades as regularly as is consistent with their own interests and the proper work of the school. This topic is considered in some detail in the following section. In anticipation, however, it may be pointed out that the conditions called for are not well met when we find pupils aged fourteen, fifteen, or even sixteen, scattered all the way from the first grade of the elementary school to the last year of the high school, and when we find in the fifth grade of county schools, for example, pupils who have attended school for varying lengths of time from three years to twelve years—the median stay in 1918-19 being more than a year above the standard for that grade.

The situation calls for: (a) the earlier entrance of pupils and their regular attendance to be provided for by a compulsory attendance law; (b) provision by better grading and better instruction for the progress of pupils through the grades.

iii.—HOW FAR DO PUPILS PROGRESS IN THE SCHOOL COURSE?

More important than the question of the amount of education which is available and *may be secured* by children in Virginia, and more important than the question of the length of time which they spend in school, is the question of the amount of education *actually secured* by them. Two phases of this problem (the character of attendance and the length of stay in school) have already been considered. It remains to consider how far children progress through the school course before they leave school.

In Table 19 are presented figures showing the relative numbers and per cents of pupils enrolled in various grades of the schools in eighteen counties and all the cities of Virginia in 1918-19. From those figures it appears that:

(1). In the first grade or below are found more than one-quarter of all white pupils enrolled in non-city schools, nearly

one-fifth of all white pupils enrolled in city schools, nearly two-fifths of all colored pupils enrolled in non-city schools, and more than one-quarter of all colored pupils enrolled in city schools.

(2). In grades fifth and below are found more than three-quarters of all white pupils enrolled in non-city schools, about two-thirds of all white pupils enrolled in city schools, all but 6.7 per cent of all colored pupils enrolled in non-city schools, and more than four-fifths of all colored pupils enrolled in city schools. Hypothetically a complete and uninterrupted progress for each pupil would mean that about forty-five per cent should be found in these grades.

(3). In the elementary school are found more than nine-tenths of all white pupils enrolled in non-city schools, all but about fifteen per cent of all white pupils enrolled in city schools, nearly one hundred per cent of all colored pupils enrolled in non-city schools, and all but six per cent of all colored pupils enrolled in city schools. Hypothetically a complete and uninterrupted progress for each pupil would mean that about 64 per cent should be found here.

(4). In the high schools are found less than eight per cent of all white pupils enrolled in non-city schools, less than fifteen per cent of all white pupils enrolled in city schools, less than one per cent of all colored pupils enrolled in non-city schools, and less than six per cent of all colored pupils enrolled in city schools. Hypothetically a complete and uninterrupted progress by each pupil would mean that about thirty-six per cent of all pupils should be found in these grades.

While the figures presented give a general idea of the grade distribution of pupils in school, and suggest the fact that a relatively small proportion of the pupils enrolled complete the full course, or even the course of the elementary school, they do not give us anything like an exact estimate of the proportions of children entering school who progress through various stages of the course. Thus we cannot determine the proportion of white children reaching the seventh grade in county schools by comparing the seventh-grade enrolment (3,481) with the present enrolment in the first grade of those schools (11,457). This is because the number at present enrolled does not repre-

sent the number entering school seven years ago nor even those only entering this year, but those pupils entering school this year, plus those promoted from "primer" or kindergarten classes plus a large number of pupils who were not promoted out of the first grade last year and who have remained to increase greatly the number of pupils in the first grade this year. Likewise the number of pupils at present enrolled in the seventh grade includes not only those who entered school seven years ago but some of that number plus many who formerly belonged to other groups and have been held back through non-promotion, have entered from other schools, have been accelerated, or in other ways been added to the original group.

Because of the numerous variable factors involved it is difficult to secure accurate figures showing the exact proportions of children remaining in school through various grades without an almost prohibitive expenditure of time and money. However, we may secure an approximate estimate which is sufficiently accurate for all practical purposes. Most pupils are in school at ages eight, nine, ten, and eleven, and of children in school the largest age groups are for those ages. An average of the number of pupils of those ages will give us a reasonable estimate of the average number of pupils entering school each year, and the per cent that pupils in each grade are of that figure will in general give us a fairly reasonable estimate of the proportion reaching that grade of children entering school in any one year-group. Such figures are presented in Table 20. They suggest that:

(1). Pupils remain in school for the most part up to the fifth grade in white schools and up to the fourth grade in colored schools.

(2). Dropping out begins doubtless in the fourth or fifth grades in white schools, but does not become very significant until the sixth grade. By the seventh grade nearly one-third of the white pupils have left school.

(3). Colored pupils leave school in large numbers by the time the fifth grade is reached and very rapidly after that grade, particularly in the county schools. By the seventh grade more than four-fifths of colored pupils in non-city schools and more than three-fifths of colored pupils in city schools have left school.

Ages:

14

8

7

15

16

10

10

12



3rd. Grade Line Pine. Isle of Wight.

(4). The proportion of white children in the non-city schools who reach the high school is approximately three-fifths as large as the proportion of white children in city schools, and the proportion of white children who complete the entire high school course in non-city schools is less than one-half as large as the proportion of white children in city schools. This is in part due to the teaching and educational organization in the cities, but also in part to the lack of provision for secondary schools in many rural districts.

(5). Very few colored children reach the high school grades in the non-city schools, while about one-quarter of the colored pupils in cities reach at least the first grade of the high school. In very few parts of Virginia are high-school facilities provided for negroes and even in some cities of the state such facilities are entirely lacking.

(6). For white pupils in cities a relatively large proportion of children reaches the high school grades, as compared with other parts of the country. In this connection, however, it must be remembered that in Virginia and in general throughout the South the high school grades are preceded by seven regular grades of elementary schooling, as compared with eight grades below the high school in other parts of the country.

iv.—HOW REGULARLY DO PUPILS PROGRESS IN SCHOOL?

A final problem which must be considered is that which concerns the amount of education received by pupils who spend various amounts of time in attendance. How regularly do pupils enrolled in the school progress through the various grades? Do pupils reach the different successive grades of the school course "on time" as measured by the standards on which the course is organized and administered? What proportions of pupils reach the various grades at the "normal" age, below the "normal" age, and above the "normal" age? What proportions of pupils reach the various grades after the "normal" stay in school for those grades, after more than the "normal" stay, after less than the "normal" stay? These are problems considered below.

In Virginia the school course is organized and administered theoretically on the assumption that children enter the first

grade at the age of seven, progressing successively at the age of eight into the second grade, at the age of nine into the third grade, and so on. Actually, as already pointed out, about as many children enter school at the age of six, or even younger, as at the age of seven, and as a matter of fact there is nothing standard or regular in the ages at which pupils do enter school, many straggling into school at the age of eight, nine, ten, or even older. The lack of a real compulsory attendance law works a part of its great damage through the lack of uniformity in the ages of children entering the first grade, making it necessary (especially in rural communities, where separate sections for children of widely different degrees of maturity are impossible in the same grade) to organize classes composed of children of ages all the way from five to sixteen or even older in the first grade. This disparity in degrees of maturity among pupils of the same class persists in successive grades, and in many schools makes real education totally impossible even with the best of teachers. School after school in rural districts visited by members of the survey staff manifested such wide variability in maturity among the pupils of any one class that effective instruction was out of the question in those schools.

In Table 21 are presented figures showing the median ages of pupils in various grades of the schools of eighteen counties and all cities of Virginia in 1918-19. Those figures show the following facts.

(1). In one-room schools for white pupils the median age in each grade from the fourth grade on is a year higher than the Virginia standard, and two years higher than the national standard. In one-room schools for colored pupils the discrepancy between the standard age for a grade and the median age actually found for that grade increases from two years in the second grade, according to the Virginia standard, and three years, according to the national standard, up to two and one-half years, according to the Virginia standard, and three and one-half years, according to the national standard in the sixth grade.

(2). In non-city schools of all types for white pupils the median age in the third grade is a half year above the Virginia standard and a year and one-half above the national standard.

The difference increases to a year, according to the Virginia standard, and two years, according to the national standard in the seventh grade. In schools of this class for colored children the median age in each grade is approximately two years above the Virginia standard and three years above the national standard in every grade of the elementary school.

(3). In city schools for white pupils the median age for each grade from the fourth to the seventh is approximately half way between the Virginia standard and the national standard, though the median age in the first and second grades is approximately the same as the national standard, and one year below the Virginia standard. In negro schools in the cities the median age in each grade of the elementary school above the first grade is approximately one-half year above the Virginia standard, and a year and one-half above the national standard.

It is to be remembered in this connection that in the first grades of city schools two-thirds as many more children are six years of age or younger as are seven years of age, or, in other words, that in the cities of Virginia the entrance standard of six years (national standard) more nearly fits the case than an entrance standard of seven years (general Virginia standard).

(4). Pupils enter the high schools of Virginia at about the same median age as pupils in other parts of the country, in cities of over ten thousand population possibly at a slightly, though not appreciably, lower age. In other words, for the state as a whole, it takes such pupils as persist in school as long, on the average, to complete the seven grades of education provided in Virginia as it takes pupils in the states of the North and West to complete the eight grades of education there provided. In the judgment of the investigators nothing or little is gained in time or education and much is lost through congestion in the grades and through poor grading by the eleven-grade course of the South as compared with the national twelve-grade course.

The general situation disclosed by the figures presented in Table 21 may be supplemented and substantiated by a consideration of the proportions of children of "normal" age, over-age, and under-age for the grades in which they are located.

By the Virginia standard it is assumed that pupils enter school at the age of seven in the first grade, that eight-year-old pupils should be in the second grade, nine-year-old pupils in the third grade, and so on. By the national standard it is assumed that children enter school at the age of six, are seven years old in the second grade, eight years old in the third grade, and so on. The actual conditions in Virginia are somewhere between the theoretic Virginia standard and the national standard as far as the age of school entrance is concerned.¹

Pupils are said to be of "normal" age for any grade if they are of the theoretic age for that grade, having entered school at the standard age and having progressed without being held back or put forward. They are said to be over-age if their age is above that set by the standard, and they are said to be under-age if they are younger than the age prescribed by the standard. In Table 22 are presented figures showing the per cents of pupils in the schools of eighteen counties and of the cities of Virginia who are of "normal" age, over-age, or under-age for their respective grades. Because of the varying age standard for entering the first grade in Virginia, figures are given both according to the Virginia standard (entrance age seven), and according to the national standard (entrance age six). Those figures show that:

(1). In one-room and two-room schools sixty out of every hundred white pupils are older than they should be for their grades, according to the Virginia standard, and more than eighty out of every hundred are older than they should be for their grades, according to the national standard. In negro schools of the same classes seventy-eight out of every hundred are over-age for their grades, according to the Virginia standard, and ninety-three out of every hundred, according to the national standard.

(2). In the larger rural schools and schools in towns (not cities) conditions are somewhat better, but still very bad, and in all county schools combined fifty-seven out of every hundred white pupils are over-age, according to the Virginia standard, and seventy-nine out of every hundred, according to the

¹ See Note at close of this chapter.

national standard. Corresponding figures for colored pupils in such schools are eighty out of every hundred, according to the Virginia standard, or ninety-four out of every hundred, according to the national standard.

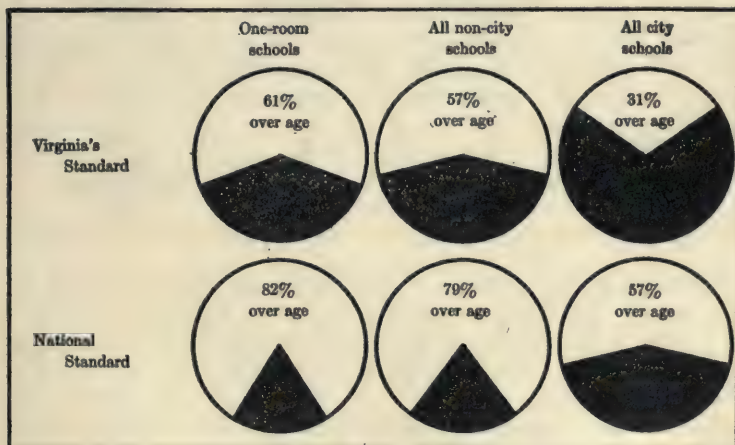
(3). In cities of under ten thousand population the per cent of over-age white pupils is 42.6, according to the Virginia standard, and 69.6, according to the national standard. Corresponding figures for colored pupils in such cities are 62.3 per cent, according to the Virginia standard, and 85 per cent, according to the national standard.

(4). In cities of over ten thousand population 28.5 per cent of the white pupils are over-age, according to the Virginia standard, and 54.2 per cent, according to the national standard. Corresponding figures for negro pupils in those cities are 54.9 per cent and 77.5 per cent.

Figure 3

Showing for white pupils the amount of over age in 1918-19.

See Table 22



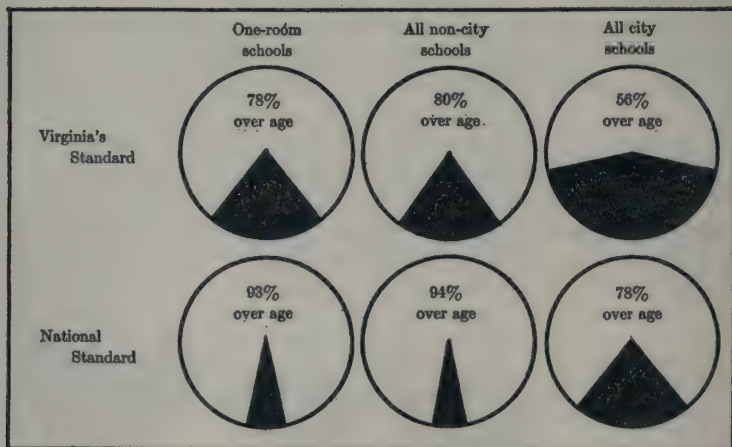
Beyond question there is a tremendous amount of retardation in the general sense of over-age in the schools of Virginia, particularly in the rural schools. Now over-age may be due to one or both of two causes: (a) entry into school later than the

"standard" age, or (b) failure to be promoted regularly from grade to grade. Likewise under-age may be due to either or both of two causes: (a) entry into school at an age younger than the "standard" age, or (b) promotion more rapidly than is usual. By far the greater part of the under-age found in the Virginia schools is due to early entry rather than to rapid progress, especially in non-city schools.

Figure 4

Showing for colored pupils the amount of over age in 1918-19

See Table 22



Over-age in the schools of Virginia is explained in both of two ways. Attention has already been drawn to the fact that there is no uniformity in the age of entrance. It remains to consider the extent to which non-promotion affects the amount of over-age manifest in the figures already given. In Table 37 are presented figures showing the proportions of pupils in the schools of eighteen counties and all of the cities of the state (except Richmond) who have been in school for the normal number of years to have reached the grades in which they were located in 1918-19, who have been in school longer than the number of years usually taken to reach the grades in

which they are located, and who have attended school less years than the number regularly expected of children in the grades in which they are located.

From those figures it appears that nearly three-fifths of all white pupils in the non-city schools and more than one-third of all white pupils in city schools have spent in school one or more years more than they should have spent to reach the grades in which they are located, while about three-quarters of colored pupils in non-city schools and nearly three-fifths of colored pupils in city schools have failed to reach the grades which their stay in school justified. Hence it is clear that a large part of the over-age found in the schools of Virginia is caused by the failure of pupils to progress with a fair degree of regularity through the schools. It is not to be expected, of course, that all pupils should be promoted regularly. In fact such a situation would be quite contrary to sound policy, since pupils differ markedly in ability and in attendance. Nevertheless, it is certain that a reasonable degree of efficiency does not exist where nearly sixty per cent of the pupils enrolled have spent one or more years in school over and above the time normally set as the standard for various grades. This is the situation found in the county schools for whites in Virginia. For negro schools of the same classes, the situation is almost unbelievable—seventy-five out of every hundred pupils having spent one or more years in school in excess of the amount normally expected for their grades, and more than forty out of each hundred having spent in school an excess of two or more years. Conditions in the non-city schools need not be compared with any abstract standard to illustrate the unsatisfactory conditions found. Comparison with conditions in the city schools of Virginia is sufficient to point the moral of the tale, though even in the cities conditions are far from perfect.

V.—HOW ARE PUPILS GROUPED IN THE SCHOOL COURSE?

Effective education is vitally dependent on the grouping of children in grades so that pupils of approximately like degrees of maturity and training may be taught in groups. Whenever pupils of widely different degrees of maturity or training are grouped in the same classes effective education is seriously handicapped.

What is the situation in Virginia? In previous sections of this chapter it was shown that wide variation in the age of entrance, together with a high degree of retardation, results in widely heterogeneous groups of pupils in different grades of the school. A complete view of the situation is found in Tables 23 to 32, which show the age-grade distributions and the grade-stay distributions of pupils in schools of different classes, in Table 33 which shows for each age-group in the schools the per cent of pupils of the standard age in the standard grade, in Table 34 which shows for each grade the per cent of pupils in that grade who are of standard age, in Table 35 which shows per cents of pupils in each grade who have attended school for the standard length of time for that grade, and in Table 36 which shows the per cents of pupils at standard grade for their length of stay in school. From those tables the following facts may be learned:

(1). In non-city white schools pupils fourteen, fifteen, or sixteen years of age are scattered all the way from the "primer" (sub-first) grade through the last grade of the high school. In colored schools of the same classes the situation is much the same—it could not be much worse—except that the number of colored high-school pupils in non-city schools is too small to figure.

(2). In city white schools the situation is better, though here again we find pupils twelve, thirteen, or fourteen scattered all the way from the lower grades of the elementary school to the upper grades of the high school. In city schools for colored children the situation is noticeably worse.

(3). In non-city schools for white children the ages of children in each grade of the elementary school cover a range of at least twelve years and great disparity in age among children of the same grade is very much the rule rather than the exception. In schools of the same classes for colored children the situation is worse, there being, in the second grade, for example, nearly twice as many children twelve years of age or older than eight (standard age for that grade) and younger.

(4). In city schools for white pupils the ages of children in each grade of the elementary school cover a range of ten or

eleven years, and again great differences in age among pupils of the same grade is the rule. Again also the situation in city schools for colored children is worse.

(5). In non-city schools for white pupils, children who have attended school for eight, nine, or ten years are scattered all the way from the lower grades of the elementary school to the upper grades of the high school. For colored schools of the same classes the range is smaller—largely because retardation is much greater.

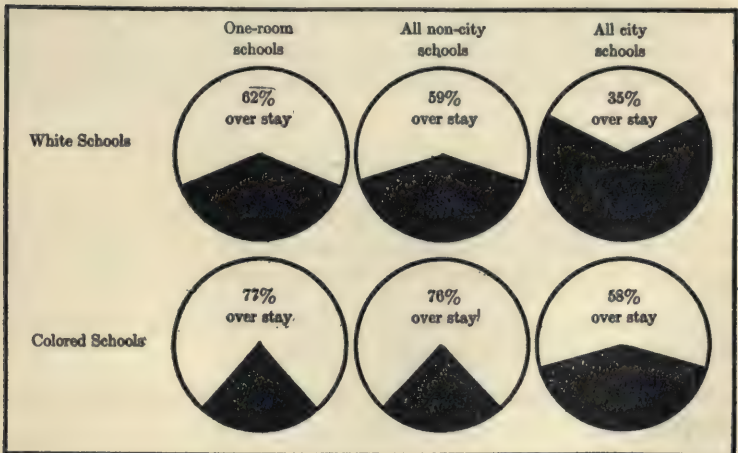
(6). In city schools for white children the situation is much better, though wide variability in grade location is observable for children who have attended school for the same period of time. These statements are also true of city schools for colored children.

(7). In non-city schools for white children there are found in each grade pupils varying widely in the length of time they have spent in school, e.g., in the first, second, third, or fourth grade pupils are found who have spent more than eight different lengths of time in school. The situation is worse in schools of the same class for colored children.

Figure 5

Showing the amounts of over stay in 1918-19

See Table 37



(8). In city schools the conditions are much better both for white children and for colored children.

Summarizing the facts regarding the age-grade and the grade-stay distribution of pupils in Virginia, we may say that in the cities the distribution of white children is probably neither better nor worse than is commonly found throughout the country, but that in the counties the situation on the whole can be described as little less than chaotic—a judgment which has been arrived at not only from the figures presented, but also through school visits by members of the Survey Staff.

It is true, of course, that the extremes found in a consideration of the aggregate figures for a number of counties and for thousands of schools do not give a true picture of the situation in each county or in each school. Nevertheless, the situation is bad—very bad—for the non-city schools as a whole, and for the state as a whole, in so far as the situation in the State can be judged from the situation in eighteen or twenty representative counties.

The situation described is the result of many factors at work, especially: (a) entry in school at different ages, (b) irregular attendance, (c) lack of knowledge of the principles of grade classification on the part of teachers, (d) poorly trained teachers, (e) the lack of adequate supervision. Correspondingly the proper remedies are: (a-b) provision for entrance into school at the proper age and for better attendance through a compulsory attendance law, (c) more attention to proper grading and promotion, (d) better trained teachers, (e) provision for better supervision.

RECOMMENDATIONS

The considerations adduced in this chapter support the following mentioned recommendations which are presented in more specific and detailed form in other chapters of this report.

1. That provision be made for the earlier entry of children into school. (See Chapters II and III).

2. That provision be made for better attendance. (See Chapter III).

3. That provision be made for better trained teachers. (See Chapters VII—IX).

4. That provision be made for better supervision. (See Chapter XIV).

5. That school consolidation be greatly extended. (See Chapter XV).

6. That better provision be made for the classification of children in grades with more definite standards for the time allotments of studies in each grade. (See Chapter V).

7. That the reorganization recommended in Chapter XVI be adopted.

NOTE—In this chapter normal age, over age, and under age have been calculated on the basis of a “one-year span,” i. e., on the assumption that a single year-age should be considered standard for any one school grade—for example, that pupils in the first elementary grade should be seven years old (Virginia standard), in the second grade they should be eight years old, and so on. There is some reason for the “two-year span,” sometimes employed, i. e., for assuming that normal age may properly include ages seven and eight (Virginia standard) for pupils in the first grade, ages eight and nine (Virginia standard) for pupils in the second grade, and so on. The reason for this is that children reach the age of seven at different times during the year and may enter school when barely seven years of age or when nearly eight years old. As a result, some children, e. g., those whose seventh birthdays fall in August, September, or October may enter school at once, while others whose seventh birthdays fall in December, January, or later, defer their entry into school until the following September. Thus it happens that when an age census is taken registration ages may be quite misleading.

For comparative purposes Table 22-B presents figures showing the proportions of pupils of normal age, over age, and under age according to the “two-year span.”

CHAPTER V

THE ELEMENTARY SCHOOL PROGRAM

HAVING discussed the extent and amount of education provided for and received by the children of Virginia, we may begin a consideration of the character of that education, dealing first with the character of the educational program offered. In this chapter is discussed the program of education provided in the elementary school. In succeeding chapters will be discussed the character of the program of education provided in the secondary school.

i.—LEGAL REQUIREMENTS AND THE STATE COURSE OF STUDY

By section 702 of the Revised Code the following subjects are required to be taught in every free public school of Virginia: orthography, reading, writing, arithmetic, grammar, geography, physiology and hygiene, civil government, drawing, history of the United States and history of Virginia, the "prevention of accidents," and "moral education....to be extended throughout the entire course."

The State Course of Study for Elementary Schools adds certain studies, and sets a standard for the schools of the State involving the following program:

Reading.....	Grades 1-7	Music.....	Grades 1-7
Spelling.....	Grades 1-7	Hygiene, etc.....	Grades 1-7
Writing.....	Grades 1-7	Constructive Work..	Grades 1-4
Arithmetic.....	Grades 1-7	Manual Training...	Grades 5-7
Language.....	Grades 1-5	Sewing.....	Grades 5-7
Grammar.....	Grades 5-7	Cooking.....	Grades 6-7
Geography.....	Grades 4-7	Gardening.....	Grades 5-7
History.....	Grades 5-7	Agriculture.....	Grades 5-7
Drawing.....	Grades 1-7		

This Course of Study is an expression of the best educational thinking of the State, having been formulated by committees of teachers and superintendents in Virginia. It is a clear, concise statement of what should be studied in the elementary

schools in their present organization. It includes brief, but, on the whole, admirable statements regarding the aims and methods of study for each subject in each grade, together with a list of the books approved for each subject and grade and a list of supplementary books. In general the course is thoroughly modern and in harmony with the best practice. It should be the controlling guide for teachers and superintendents in all but the larger cities, displacing local and county courses at variance therewith. At present eleven counties in the State report local courses of study in operation. For the most part they vary but little from the State course of study.

ii.—THE ELEMENTARY SCHOOL PROGRAM IN PRACTICE

According to commonly accepted practice at present the course of study set up by the State Board of Education is good. What is the actual practice in the elementary schools of the State? To what extent are the schools carrying out the State Course of Study?

In attempting to answer this question members of the survey staff employed four methods: (1) investigation by actual visits to more than eight hundred schools; (2) interpretation of information supplied by the supervisors of the State Department of Education; (3) analysis of returns made by the teachers in several hundred schools; (4) analysis of the actual weekly schedules of recitations in operation.

Visits to the schools revealed and the information supplied by the State supervisors tended to substantiate in general the conditions indicated in the discussion which follows, based on the analysis of actual programs and schedules. Returns on the special form prepared by the Survey Staff were so patently unreliable for very many schools that no attempt was made to depend on them.

In the following discussion the figures given and the conclusions drawn are based on the analysis of actual weekly schedules of recitations, with comments to some extent made on the basis of personal visits to school and the information furnished by the State Department's supervisors. Three major problems are dealt with: (1) the studies offered in various types of schools; (2) the apportionment of time to pupils in

different grades; (3) the amount of time devoted to various subjects of study. Attention is here confined to non-city schools, but of various types and located in all parts of the State.

(1). *Studies Offered:* While the cities of the State provide a relatively satisfactory program of studies as measured by common standards in practice and by the State Course of Study for Elementary Schools, the rural schools of Virginia are somewhat limited in their actual offerings to pupils, one-room schools in particular having scarcely a skeleton program. This appears clear from the figures presented in Table 38 showing the approximate per cents of schools in whose actual schedules no special time is set apart for the study of certain subjects set by the State Course of Study.

These figures do not necessarily mean that the pupils to the extent indicated by the figures have no contact with the subjects listed, but that to the extent indicated pupils are "taught" certain subjects only in an incidental fashion and without definite time assignments. Thus the fact that one-fifth of the one-room schools fail to mention writing in the weekly schedule does not mean that pupils receive no training in writing, but that the training which they receive is in many schools more or less incidental and hap-hazard. As a matter of fact in many schools of this class pens, ink, and suitable paper are almost totally lacking for proper instruction in writing, even if adequate time provision were made. Thus, too, the fact that music does not appear as a definite subject on the majority of schedules in rural schools does not mean that pupils have no contact with music through a limited amount of group singing, but it does indicate the fact, substantiated in other ways, that systematic training in the elements of music is totally lacking in all but the largest schools of the State. Even where music is found in the weekly schedule with a definite time assignment in the program, the time allotment is commonly very inadequate.

As indicated by the figures given in Table 38 and as appeared clearly to members of the Survey Staff in their visits, pupils in the one-room rural schools have an impoverished course of study, being shut out from contact with all but the skeleton subjects of an education in all but rare cases. This is partly due to the inherent difficulties of providing adequate education

in small schools where all instruction must be furnished by one teacher. It is also due in part, however, to the lack of properly trained teachers and to the lack of proper supervision in those schools.

The figures given in Table 38 also show that as larger schools are considered and as the schools become better graded, the education of the pupils is enriched. Hygiene, for instance, is taught with sepecific time assignment in nearly all two-room and three-room schools, and in all schools more highly organized that subject appears in one or more grades. Nevertheless, it is true that the complete State Course of Study is effective in very few rural or semi-rural schools, the subjects most neglected being music, drawing, nature study, agriculture, sewing, cooking, and manual training, the last three subjects being far more effectively taught and being far better provided in colored rural schools than in white rural schools.

For 1916-17 the Report of the State Superintendent reports only 5,738 non-city children engaged in the study of manual training, only 6,774 in music, 13,538 in agriculture, 46,059 in drawing, 4,791 in domestic science; and 52 in other industrial subjects—those figures covering high-school pupils as well as elementary-school pupils.

(2). *Apportionment of Time to Different Groups of Pupils:* What is the amount of time of direct instruction received by pupils in different grades of the elementary schools? The answer to this question for the non-city white schools of Virginia may be found in the figures presented in Table 39 showing the recitation time allotment for three representative grades in rural elementary schools for white children. From those figures the following facts appear:

(a). In one-room schools children receive little attention through direct instruction by the teacher. Whatever education children receive in such schools must be largely self-directed. This is particularly true of children in the first grade who, on the average, receive less than one hour per day of the direct attention of the teacher. In one-half of these schools first-grade children receive less than fifty-five minutes of the teacher's time.

(b). As the size of the school increases and as each teacher has fewer grades under her charge, the amount of her time devoted to children in each grade increases. Even in two-room and three-room schools, however, children in the first grade are being neglected.

(c). In non-city schools of all types children in the lower grades receive a very inadequate proportion of the teacher's attention. Thus in one-room schools pupils in the first grade receive less than 58 per cent of the amount of the teacher's time received by pupils in the seventh grade. In two-room schools the first-grade pupils receive about 75 per cent, in three-room and in four-room schools about 63 per cent, and in larger schools about 78 per cent, as much time as is given to seventh-grade pupils. During a five and one-half hour (330 minute) school day (exclusive of recesses, etc.), children in the first grade, on the average, receive the direct attention of a teacher for about one-sixth of the time in one-room schools, for nearly one-third of the time in two-room, three-room, or four-room schools, and for about one-half of the time in larger non-city schools. Thus it is evident that the younger children have a much smaller proportion of the teacher's time than do the older pupils, a fact which is all the more significant when we realize that, the younger children are, the less able they are to work independently and to direct their own efforts. There is abundant evidence that in the majority of non-city schools, and particularly in small schools of the predominating type, the interests of the younger children are being sacrificed in favor of the older pupils. This is especially true of small but over-ambitious schools which attempt to maintain small high-school classes to the great detriment of younger and more numerous children.

(d). The figures presented show clearly that there is little uniformity among schools with respect to the amounts of time which teachers devote to children in any one grade. Thus the amount of the teacher's attention devoted to first grade pupils in one-room schools ranges all the way from twenty minutes per day to one hundred thirty-five minutes per day. Similarly large amounts of variability are found in every grade and in every type of school. Unquestionably differences must be

found in schools of different types. Unquestionably also minor differences are to be expected in different schools of the same class because of the varying number of pupils in different grades. Such differences as are found at present, however, cannot be justified. They are due in no small degree to poorly-trained teachers and to the lack of supervision.

(3). *The Time devoted to Various Studies:* Having considered the studies actually provided in county schools of various types and the apportionment of time to different groups of pupils, we may now consider the actual time spent on the different subjects of the program, limiting ourselves, however, to a discussion of the time spent in recitation under the direct guidance of the teacher.

In Table 40 are presented figures showing for arithmetic the time allotments for class work with the teacher in schools of different types and for grades one, five, and seven. From these figures and from the more detailed figures which form the basis of this table several important facts appear.

(a). There is great variability to be found even in schools of the same class. Figures, for one-room schools in particular, show that there is no common standard of thinking among teachers as to how much time should be devoted to the study of arithmetic.

(b). There is a much greater degree of difference between schools of various types with respect to the amount of time to be devoted to arithmetic.

(c). In nearly two-thirds of the one-room schools less than fifteen minutes a day is devoted to recitation work in arithmetic in the first grade, and not more than eighteen minutes a day in the fifth or seventh grades. On the other hand, fourteen per cent of those schools provide from twenty to twenty-five minutes for arithmetic per day in the first grade, ten per cent provide thirty minutes or more per day in the fifth grade, and fourteen per cent provide thirty minutes or more each day for arithmetic in the seventh grade.

A similar examination of other elementary studies in schools of different types shows: (1) that the State course of study,

itself admirable in most respects, appears not to have had its proper influence on the work actually done in a large proportion of the non-city schools of the State, (2) actual practice in non-city white schools indicates that on the whole teachers and supervisors have little conception of desirable allotments of time to the various studies.

Here it may be pointed out that the State course of study gives teachers little help in judging the relative amount of time that should be devoted to the various studies in different grades and in schools of different types. The only "Daily Program" outlined is practicable in the relatively few larger schools.

iii.—TEXT-BOOKS

The character of the education provided is vitally affected and the course of study is vitally conditioned by the character of the text-books employed in the teaching of various subjects. We may, therefore, consider the matter of textbooks used in Virginia, dealing (a) with the list of books selected and approved by the State Board of Education, and (b) with the extent to which pupils are actually supplied with essential books.

(a). *The State List of Text-books:* By section 611 of the Revised Code the State Board of Education is charged with the responsibility of selecting "text-books and educational appliances for use in the public schools in the State of Virginia, exercising such discretion as it may see fit in the selection of books suitable for schools in the cities and counties, respectively."

In accordance with that law the Board of Education has selected and approved certain text-books which are published in a "Revised List of Elementary and High School Text Books (1916)." That list is properly divided into "basal" books, used regularly as the central basis of work in various studies, and "supplementary" books, which are intended to extend instruction. The list of basal text-books appears, on the whole, to be well selected and to include books of the type necessary for effective education. The list of supplementary books is good as far as it goes, but does not provide books of certain types,

e.g., (i) there are no "complete" selections of literature,¹ such as are now available and should be listed for grades four to seven, (ii) there are no standard history stories for children, (iii) only one series of geographical readers is listed, though there are now many other excellent books of travel, story, industry, etc., with which the children of Virginia should supplement their study of geography. For basal text-books which every child in the State must use (with certain local options) and which in most cases he must buy, careful restriction under a policy of State adoption is justified. For supplementary books much more freedom may be allowed the local authorities for selection. The present supplementary list might well be extended considerably.

(b). *Text-book Supply*: By an act of the 1916 session of the General Assembly, school districts were permitted, in case of an affirmative referendum vote, to furnish free of charge to all pupils in the public schools all books adopted for use in those schools, no pupil to be allowed more than one book of any one kind, free, for any one year. It was further provided that books for use in the schools should be ordered at least thirty days before the opening of schools.

As yet little advantage has been taken of that law and in general throughout the State text-books must be purchased by the pupils or their parents. The great difficulty here does not lie in the fact that the expense is borne by parents, but in the fact that the responsibility is placed on them of seeing that their children are properly supplied with text-books and that they are supplied promptly when needed. As a result at the beginning of the school year many children in rural districts go weeks, or even months, without their necessary text-books, and others—no small number—are never properly supplied with essential books. When to the factor of parental irresponsibility is added the difficulty of properly administering the supply and distribution of text-books in rural districts where stores are few and distant, as well as poorly supplied, great educational loss is the inevitable result.

¹ By "complete" selections are meant whole pieces of literature, such as *The Christmas Carol*, as contrasted with excerpts and fragments commonly found in readers.

The problem of text-books was examined by members of the survey staff on their visits to schools. In addition, and as a check on personal observations, a careful analysis was made of tabulated returns from over a hundred rural schools for white children. From those returns it appears that in rural schools hundreds of pupils in the schools investigated—undoubtedly thousands in the State—do not have a full equipment of the necessary basal text-books. Figures are given below:

Whole number of schools considered.....	118
Number of schools in which some pupils lack the necessary basal text-books.....	74
Number of pupils in those schools lacking one or more of the necessary basal books.....	1,445
Number of classes in which work must be retarded because of lack of books by some members of the class.....	422
Number of schools having no books for drawing (67%).....	79
Number of schools having no music books (98%).....	116

While these figures represent conditions ascertained in only 118 white rural schools, in the judgment of those who personally investigated such schools, they are probably not far from representing conditions in rural schools in general.

In rural and semi-rural schools for white children there are practically no supplementary books, exceptions being few and far between. This is not the place to discuss the value of supplementary books in the modern school. It is now recognized that to confine pupils to one or two reading books for a whole year is to rob them of their opportunity for an education. To provide them with one book in geography and one in history, which alone they must "learn" for two or three years, is to stultify their minds. The list of supplementary books issued by the State Board is somewhat limited, but even that limited list is little represented in the work of rural schools. Personal visits to schools by members of the Survey Staff substantiate the story told by the following table analyzing conditions in one hundred eighteen white schools scattered throughout the State.

Number of schools considered.....	118
Number of schools having no supplementary books (16 have dictionaries).....	60
Number of schools having one set of supplementary readers..	10
Number of schools having two sets of supplementary readers.	15
Number of schools having three sets of supplementary readers	15
Number of schools having four or more sets of supplementary readers.....	14

The poverty of this offering in the rural and semi-rural schools for white children in Virginia is all the more significant when it is remembered that in rural districts school libraries are seldom found and community libraries do not exist.

The supply of supplementary text-books must always be a matter for the most part depending on the educational interest and intelligence of local school authorities. Basal text-books, however, constitute the irreducible minimum of educational equipment which must be supplied. The conditions found in Virginia are conditions sometimes found in almost every State in which the responsibility for supplying text-books is thrown on the pupils or their parents. The best school systems have long since adopted the policy of supplying text-books free to the pupils, being moved to that policy not so much by any desire to shift the financial responsibility from parents to the public as by the necessity of ensuring the necessary text-books and supplies in the hands of the pupils.

Experience in the other States has shown that a permissive free text-book law with local option has seldom proved effective in those districts where its provisions are most needed. The law should be made mandatory and have State-wide application both for basal text-books and for supplementary books and supplies.

iv.—INSTRUCTIONAL SUPPLIES

As text-books are necessary for instruction which may make actual the theoretic education provided in the schools, so certain instructional supplies and equipment are necessary for the proper training in all subjects and without them some subjects simply cannot be taught. Thus handwriting cannot be taught unless pens, ink, and suitable paper are available, and unless pupils have some place on which to write. Thus drawing is impossible without appropriate equipment. Thus manual training and sewing or cooking cannot be taught without the fundamental tools and materials.

What is the situation in Virginia in this respect? In city schools and in rural schools of the larger and better type the minimum at least of essential supplies and equipment is reasonably well provided. In the majority of rural schools, however,

there is serious lack of even the minimum of supplies and equipment, not only for such studies as sewing, manual training, cooking, gardening, and the like, but even for such fundamental studies as handwriting, drawing, music, geography, and history. In other words, in the majority of non-city schools proper instruction in subjects set by the State Course of Study in Elementary schools is frequently impossible and always limited by the lack of educational supplies and equipment necessary for adequate instruction. These statements are made on the basis of an investigation by personal visits to hundreds of schools and are supported by information supplied by the supervisors of the State Department and by a test analysis of returns from one hundred eighteen rural schools in all parts of the State. Consideration of a few important matters will make clear the situation.

It is obvious that proper training in handwriting cannot be provided in schools where pens, ink, and suitable paper are lacking, or where the pupils have no smooth desk surface on which to write. First-hand investigation by members of the Survey Staff found this to be the case in hundreds of schools visited. In many cases the only ink supply found was a five-cent bottle on the teacher's desk, which, if used at all by pupils, had to be used in turn. Pens and paper which could receive writing in ink were more conspicuous by their absence than by their presence. So general was this situation in small rural schools that the members of the Survey Staff who gave handwriting tests to about ten thousand rural school pupils were obliged to carry with them to the schools full supplies of pens, pencils, ink, and paper—and also supplies of paste-board writing pads to be used in schools where the desks were so poor that they presented no surface on which writing could be done. Under such conditions it is not at all strange that those examiners found many schools in which pupils, even of the upper grades, had never received training in the school in writing with pen and ink. Neither is it surprising that nearly one-half of the schools reporting to the Education Commission stated that their supplies of pens and ink were inadequate. In this connection it may be added that actual first-hand investigation by members of the Survey Staff indicated that five per

cent of the white schools and forty-five per cent of the colored schools visited had desks which should long since have been consigned to the wood pile.

Blackboards are fundamentally important for instruction in almost every subject and good blackboards must be considered not merely an adjunct to otherwise effective instruction, but as absolutely essential. Yet for blackboards in 405 non-city white schools and 167 non-city colored schools the scorings given by members of the survey staff on personal visits were as follows:

Supply and condition of blackboards in non-city schools

GRADING AND CHARACTER	White		Colored	
	No.	%	No.	%
A—Perfectly satisfactory.....	37	9.1	4	2.4
B—Good, but not perfect.....	101	24.9	12	7.2
C—Fairly satisfactory, but defective somewhat.....	151	37.3	21	12.6
D—Unsatisfactory and approaching uselessness.....	97	24.0	43	25.8
E—Wholly useless or entirely lacking.....	19	4.7	87	52.0

Maps are necessary for instruction in geography and history. Charts of various kinds are desirable in the lower grades for reading, language work, and music. In some schools such equipment is almost totally lacking, in many more schools, it is so antiquated as to be useless, and for rural schools as a whole

Supply of maps, globes, and charts in non-city schools

GRADING AND CHARACTER	White		Colored	
	No.	%	No.	%
A—Adequate, modern and satisfactory.....	19	4.7	0	0.0
B—Good, but not sufficient.....	47	11.5	2	1.2
C—Fairly satisfactory but notably insufficient.....	110	27.0	14	8.4
D—Unsatisfactory and almost useless.....	106	26.0	30	18.0
E—Useless or entirely lacking.....	125	30.8	121	72.4

the supply of maps and charts is quite inadequate even for minimum work in fundamental subjects. Personal investigation through visits by members of the Survey Staff resulted in the following scoring for maps, globes, and charts in 407 non-city white schools and 167 non-city colored schools.

In non-city schools supplies and equipment for work in music, sewing, cooking, manual training, and the like subjects, included in the State course of Study, are found in very few of the larger and better schools.

The general status of educational apparatus and instructional supplies in non-city schools may be judged from the facts that in 1916-17 the average annual expenditure *per county* was \$65.73 for "maps, globes, and charts," \$93.18 for "libraries," and \$55.14 for "blackboards." For "business, manual training, domestic science, and agricultural departments" the average expenditure *per county* was \$34.79—far less than should be expected for a single school.

V.—HOW MAY NECESSARY IMPROVEMENTS BE MADE

From the foregoing discussion it is evident that in the non-city schools of Virginia there is need: (1) of making effective the State legal requirements and the standards of the Board of Education as set forth in the State Course of Study for Elementary Schools; (2) of securing a better and more standardized apportionment of time for the different subjects in each school grade; (3) of providing that necessary books and supplies are available in all schools.

How may the State of Virginia set about meeting these obvious, fundamental needs? The State Board of Education and the State Department of Education already possess the legal right to enforce Section 702 of the Revised Code (prescribing the subjects to be taught in the schools of the State) and to establish the standards set by the Board. Through their control of State funds they have the practical power to enforce the law and the regulations. An analysis of the problem suggests that the difficulties to be met and overcome are: (1) an inadequate supply of well-trained teachers capable of carrying out the program set by the State Board of Education, (2) inadequate supervision (both State and local) to guide teachers, to

stimulate local understanding of school needs, and to enforce the State requirements, (3) a lack of understanding by communities of the serious limitations to education under present conditions, (4) certain defects in the administration machinery of the State. Following are given some suggestions for meeting and overcoming those difficulties.

(1). Provision for securing a more adequate supply of well-trained teachers must be made by (a) paying salaries sufficiently high to attract and retain in the service capable men and women, (b) raising the certificating standard and extending the influence of teacher-training institutions. This whole topic is discussed in Chapters VII and IX.

(2). Provision for more adequate supervision must be made (a) by increasing the supervisory force of the State Department, (b) by the apportionment of several county supervisors and the abandonment of the fallacious assumption that a division superintendent can possibly exercise proper supervisory functions over the schools of an entire county or group of counties. This whole topic is discussed in detail in Chapter XIV.

(3). Communities must be brought to realize the serious limitations of the education provided. This involves a State-directed campaign of education as a first means, and as a second means the exertion of financial pressure where it is necessary. No school should be entitled to receive any part of State funds unless fully complying with the minimum requirements of the law and of the Board's regulations as far as subject offerings, time allotments, and equipment are satisfactorily met.

(4). Analysis of the administrative machinery of the State suggests several measures for improvement. The most important are the following:

(a). The Department of Education should issue a carefully worked-out schedule showing for the benefit of teachers and supervisors the relative emphasis and time to be given to each subject in the different grades. It should also prepare type programs for schools of different classes, programs that are practically workable as well as educationally sound.

(b). Schedules for each school in a county should receive the approval of the division superintendent before the school year begins, either directly or through the supervisors working under his direction.

(c). Small schools should be forbidden to attempt high-school work which can only result in depriving the younger children of their share of the services of the small instructional staff. The act passed at the last session of the General Assembly, which is designed to permit the teaching of high-school subjects in two-room, three-room, and four-room schools under certain conditions is not to be approved, even when partially safeguarded by the provisions that such practice must first receive the consent of the State Board of Education.

(d). The law permitting districts to provide free text-books is not likely to prove generally effective in the State. It should be amended so as to provide for a mandatory State-wide policy of free text-books and essential supplies.

RECOMMENDATIONS

1. That the State Department of Education prepare and issue a schedule of the minimum amount of recitation time to be devoted to each subject in each grade: (a) in one-teacher schools; (b) in two-teacher schools; (c) in three-teacher schools; (d) in schools having four or more teachers for the elementary grades.

2. That the time schedule of recitations in each school be submitted for approval or correction to the division superintendent before the opening of the school or not later than the tenth day after the opening of the school.

3. That no school be entitled to receive any part of State funds unless and until it meets the minimum requirements of the State law and the minimum standards of the State Board of Education concerning subjects taught and time allotments.

4. That one-teacher schools be restricted to five grades of instruction. (Cf. Chapters XV and XVI.)

5. That provision be made for a more adequate supply of well-trained teachers. (Cf. Chapters VII—IX.)

6. That provision be made for a more adequate system of supervision. (Cf. Chapter XIV.)

7. That the free text-book law be so amended as to make it mandatory rather than permissive, State-wide in its application rather than subject to local option, and that it be extended to cover all books (supplementary as well as basal) and necessary instructional supplies.



The R.W.B. Jackson
Library
OISE

CHAPTER VI

THE RESULTS OF INSTRUCTION MEASURED¹

IS my boy learning to read? Is he learning to write, to spell, to manipulate figures, to express his ideas clearly? Is he learning to do these things as well as other children of his age in Virginia schools? Does he do as well as the pupils who go to school in the best city school system, or only as well as the child in the poorest rural Virginia school? These are the questions which any intelligent Virginia parent may well ask about the schooling of his child. He may further ask if Virginia children are being taught as well as are the children of Illinois, of Alabama, of Washington, of North Carolina. As a citizen of the state he may ask these questions about other children than his own, and as a responsible public official he may demand to know in the most accurate possible terms just where the schools of Virginia stand in the service they are rendering to the children of the state.

To find an answer to these and related questions the Division of Tests and Measurements was called into existence by the Virginia Education Commission. The Division was directed to use both educational and psychological tests in the study of its problems. The work was begun with an examination of grades three to seven in the rural schools of eighteen selected counties (Albemarle, Amelia, Appomattox, Caroline, Carroll, Charlotte, Giles, Greensville, Henrico, Isle of Wight, Lancaster, Loudoun, Northampton, Rockbridge, Rockingham, Smythe, Stafford and Wise). Later tests were given in grades one and two of the rural schools. The work begun in the rural schools was extended to the schools in nine representative cities (Charlottesville, Danville, Lynchburg, Newport News, Norfolk, Portsmouth, Richmond and Roanoke) where children of all

¹Only a very brief outline of the work of the Division of Tests and Measurements can be presented here. Detailed analysis will be presented in a special report to be published later.

elementary grades were examined. Finally, a study was made of certain parts of the first year's work in twenty-five high schools of the State.

THE CHARACTER OF THE TESTS

For the type of examinations conducted in the Virginia survey, it is desirable to use standardized tests. Such tests differ from the ordinary examination set by a teacher in several ways. Chiefly, they are more carefully prepared and they have been given to large numbers of children in widely scattered communities so that the examiners already know in definite mathematical terms how high a score pupils of a particular age or grade should make. Standard tests of this type were used for measuring the achievements of children in reading, spelling, handwriting, English composition, arithmetic and algebra. Following is the list of achievement tests upon the results of which the conclusions of this chapter are based.

Table—41

Subject	Name of Test	Grades in Which Used
Reading.....	Thorndike Reading Scale, Alpha 2.....	3-7 (or 8)
	Virginia Reading Test, Sigma 8.....	1-3
	Virginia General Examination, Exercise 1.	3-7 (or 8)
Spelling.....	Ayres' Spelling Scale.....	3-7 (or 8)
Handwriting...	Starch Scale for measuring handwriting...	3-7 (or 8)
Arithmetic.....	Woody Arithmetic Scales, Series B.....	3-7 (or 8)
	Courtis Standard Test, Series B.....	3-7
	Virginia General Examination, Exercise 2.	3-7 (or 8)
English Composition.	Nassau County Supplement to the Hillegas Scale.....	1st year high school
Algebra.....	Hotz Series B—Addition and Subtraction,	
	Equation and Formula.....	1st year high school

The psychological tests were designed to secure information supplementary to that yielded by the foregoing achievement tests and scales. Three separate intelligence examinations were used. The first, known as Delta 1, is a modification of the army intelligence examinations Alpha and Beta. The

modifications consist essentially in a selection of those parts of the army examinations suitable for the elementary grades three to eight and the first year of high school and the addition of other similar items. For grades one and two a special examination known as Delta 7 was arranged. Both of the foregoing examinations were given to the children in groups. For individual examinations an abbreviated form of the Stanford Revision of the Binet-Simon tests (Delta 3) was used. Finally, each teacher whose pupils were examined filled in a teacher's record of pupils (Delta 2) giving the name, age, grade, and years in school of each child, together with her personal estimate as to his scholarship, industry and general intelligence. Near the close of the examination it became possible to co-operate with the National Research Council in giving a series of twenty tests to pupils who had already been examined by the Commission's tests. The results of these tests are available to the Commission and will be dealt with in the special report on tests and measurements.

SCOPE OF THE INVESTIGATION

All of the tests noted in the previous section, except the Stanford-Binet tests, were available for group examination, as many as twenty-five or even more children being examined at one time. It was thus possible to include a large number of schools and many different pupils in the survey and to get the data from many different localities representing a wide variety of school conditions.

Since it was impossible in the time available to examine any large proportion of the schools of the state, special effort was made to select for examination those schools which would fairly represent the major school conditions in the state, and in the schools examined a number of children sufficient to represent all were tested. In the beginning, the counties in which the examinations were to be given were carefully chosen so as to include some in which the very best school work in the state is being done, some in which the schools are most in need of improvement, and others in which the school work is of intermediate quality. Similarly, within each school division the

schools to be examined were selected so as to get fair samples of all the work in the division. It was desired that the results of the test should give a fair picture of all the school work in the state—good, poor, and mediocre. That they do give such a picture is the judgment of the Survey Staff and it is supported by the oral and written judgment of a large number of school officers in the state who are familiar with the methods by which the examinations were made.

The scope of the survey may be appreciated by the fact that about sixteen thousand different children were examined with from six to forty different tests. Of this sixteen thousand children about five thousand were in grades three to seven of rural white schools. More than one thousand were in grades one and two of these same schools. The additional six thousand white children were in grades one to seven (or 8) of urban schools and in the first year of twenty-five urban and rural high schools. In all about three thousand colored children were examined, of whom fifteen hundred were in the rural schools, one hundred fifty in the first year of the colored high schools of Richmond and Norfolk, and the remainder in the elementary grades of city schools. For comparative purposes all of the children in the Whittier School at Hampton Institute were examined.

While this total number of children is not a large per cent of all the school children in the State it affords a fair sample of the entire school population, and, because of the method by which they were selected, the results do show in a fair way the conditions of school work in the state.

The testing in grades three to seven of the rural schools was done between March 17th and April 20th. The tests in city schools were completed for these grades within ten days thereafter, and the testing of grades one and two came in late May. The giving of these tests required the entire time of the staff of six persons for two months, and the time of thirty others who worked from one to four weeks each under the direction of the staff. The latter group of persons were chiefly school superintendents and principals in Virginia, members of the State Department of Education and members of the faculties of the normal schools and colleges of the state.

THE RESULTS OF THE TESTS

The results of the tests and measurements will be here presented only in so far as they bear upon the most important school problems. Because of the limited space in this chapter the detailed results, for the most part, will be omitted and the general conclusions based on them will be somewhat dogmatically stated. Abundant evidence for all conclusions, however, exists and will be set forth in the special report on tests and measurements.

Any fair interpretation of the gross scores of the tests must take into account the conditions prevailing in Virginia schools. The first of these is the fact that Virginia attempts to cover the elementary course in seven years whereas for most parts of the country an eight year elementary course is standard. The second modifying condition is the fact that in the non-city schools of Virginia the white pupils are from one half to one year above the national standard age for each of the elementary school grades. Colored children are still older. The details for age for the State as a whole have been set forth in Chapter IV. Further treatment will be given later in this chapter.

THE SEVEN-GRADE SCHOOL

Since the seven-grade system affects the interpretation of all the results its consideration may be taken up before the presentation of any detailed scores. If we assume that the elementary school course is a fairly fixed quantity we may say that Virginia attempts to do in seven grades what most schools attempt to do in eight.¹ On this assumption one grade of the elementary school in Virginia equals one and one-seventh grades in the eight-grade system. This may be seen graphically in the following figures where the horizontal line represents the duration of the elementary school course.

Table—42

Showing the relation of grades in the Virginia system to those in the standard system

GRADES Beginning of Elementary School GRADES	1	2	3	4	5	6	7	End of Elementary School
	1	2	3	4	5	6	7	8

¹ The State Course of Study is organized on that basis.

The divisions on the upper side of the line represent the seven year course and those on the lower side of the line show the eight year course. It will be seen from this figure that a seventh grade Virginia score should not merely equal a seventh grade score in the eight year system; it should equal an eighth grade score since in both systems the children at the end of the respective years are completing their elementary schooling. Similarly, a sixth grade Virginia child should fall but little short of a seventh grade score of an eight year system, and so on down the grades. The table of equivalents is as follows:

*Seven Grade System**Eight Grade System*

1 grade.....	equals.....	1	1-7 grades
2 grades.....	equal.....	2	2-7 grades
3 grades.....	equal.....	3	3-7 grades
4 grades.....	equal.....	4	4-7 grades
5 grades.....	equal.....	5	5-7 grades
6 grades.....	equal.....	6	6-7 grades
7 grades.....	equal.....	8	grades

RESTATEMENT OF THE PROBLEM

With these preliminaries out of the way the problems raised in the first paragraph of this chapter may now be restated. Is the product of the public schools of Virginia as good as it ought to be? Are the children of Virginia parents getting as good an education as they are entitled to receive? In how far do the children of Virginia equal, exceed, or fall short of the scores made by children in Pennsylvania, Wisconsin, Iowa and other States? Do the Virginia pupils equal the standard of achievement set by the authors of the tests as valid for the several grades?

A single answer to these questions is difficult because standard scores are not as widely available as helpful comparison demands. In particular there are few such scores at hand for Southern States where social and economic conditions most nearly approximate those of Virginia. Further, there are practically no available scores for rural schools of the type examined in this survey. It is possible, however, to compare the different types of Virginia rural schools with each other and with the Virginia city schools, and to compare the city schools of Virginia with numerous city schools throughout the country.

READING

Keeping all these facts in mind we may now examine the results of the Virginia tests. Because it is the most fundamental of all subjects we may begin with the subject reading, which is not only the most essential tool of educational advancement, but is also one of the best indices of a pupil's general educational growth. The subject of reading is here used in the somewhat restricted sense of the ability to get meaning from printed symbols through silent perusal of them. The tests were all alike in this, that the children were given printed material, asked to read it, and then to make certain simple but definite responses with the pencil, such as writing words, making marks on pictures, or underlining words—responses which showed definitely if they understood what was read. It is the same kind of ability a person must have if he is to read a book, a newspaper, a magazine, a railroad ticket, or a sign on the road.

Careful efforts were made to determine this capacity among Virginia children. Three different reading tests were given. Approximately twelve thousand children from the third year elementary to the first year of high school were tested by the Thorndike Reading Scale, Alpha 2. The same number took exercise one of the Delta 1 examination, and more than three thousand took the test in primary reading.

The scores for the Thorndike reading scale are given in condensed form in Table 43.

The heavy line in the body of this table is a repetition of that in Table 42 and shows the equation of the seven-grade to the eight-grade system. Above this line are the Virginia scores; below it are the scores for the eight-grade system.

The first comment to be made upon the Virginia scores as shown in this table is a favorable one. Both in the rural and the city schools there is distinct progress from grade to grade. In the rural schools it averages .7 of a scale step throughout the course. In the city schools the average is .6 of a scale step. The rate of progress from grade 3 to grade 7 would therefore seem slightly favorable to the country schools. This apparent advantage is not real but is due to the fact that the third grade rural score is so distinctly below the city score for that grade that it offers larger opportunity for improvement.

Table—43

Scores of Virginia pupils (white only) on Thorndike Reading Scale Alpha 2 and comparative scores for other schools. The Virginia seven-grade system is shown above the heavy line. The comparative scores from eight-grade systems are below the heavy line.

Average score								
Virginia rural.. .. .			4.1	4.9	5.4	6.2	6.9	
Virginia city second half year... ..			4.9	5.1	5.6	7.1	7.3	
<hr/>								
VIRGINIA GRADES	I	II	III	IV	V	VI	VII	
<hr/>								
STANDARD GRADES	I	II	III	IV	V	VI	VII	VIII
<hr/>								
Thorndike Standard.....			4.7	5.2	5.7	6.5	7.0	7.5
34 Wisconsin cities.....			5.1	5.4	5.9	6.8	7.0	7.3
St. Paul (mid-year).....				5.5	5.7	6.7	7.1	7.7
Patterson.....				4.8	5.4	6.3	6.5	6.9

If we compare the Virginia city scores with the city scores outside the state the comparison is favorable in grades three, six and seven. The Thorndike standard score for the eighth grade is 7.5 and the actual median achievement in this grade for 34 Wisconsin cities is 7.3. The median age of the Wisconsin pupils is 14 years, which is just the median age of the seventh grade Virginia children whose papers were counted and who scored a median of 7.3, or exactly the Wisconsin score. Similarly, the median age of Virginia city sixth grade pupils is exactly the same (13 years) as the Wisconsin median for the seventh grade and the score is essentially the same. From these figures we would conclude that Virginia cities do succeed in teaching children to read by the time they reach the end of the elementary course—succeed as well as does Wisconsin or the schools from which the Thorndike Standards were derived.

In earlier grades, however, and particularly in the fourth and fifth grades, the Virginia cities do not appear so favorably.

The fourth-grade Virginia city score for children, with a median age of eleven years, is 5.1. This is the Wisconsin third grade score for pupils whose median age is nine years. The Virginia fifth grade score for children, with a median age of 12 years, is practically the same as the Wisconsin fifth grade score for pupils eleven years of age.

It would seem from these figures that, while the Virginia children acquire by the end of their elementary course an ability in reading comparable with that of pupils in good schools throughout the country, they arrive somewhat slowly, as indicated by the scores of the earlier grades.

If we turn to the rural schools the condition is less favorable. The scores are in every grade lower than the Thorndike standard and lower than the Virginia city scores. The pupils, except in the third grade, are also a half year older than the city pupils. The median seventh grade rural pupil is 14.6 years old and scores 6.9 on the Thorndike scale. This is not only .4 points or more than half year's progress less than the score of the city seventh-grade child of 14 years, but it is less than the Wisconsin score for the seventh grade (median age 13). It would seem, therefore, that the rural children in Virginia are from a year to a year and a half behind where they should be under good school conditions.

This loss of time is not only significant for those pupils who remain in school until the end of the course; it is much more significant for those who because of retardation leave school earlier, with the reading ability of the fifth or sixth grade pupil, an achievement much below the needs of real life.

The foregoing discussion has been concerned with average and median scores where large groups of children are taken as a unit. Speaking of all of Virginia's rural children or all her city children as a unit, however, does manifest injustice to certain schools by rating them lower than they deserve and by making others appear better than they are. In the city of Richmond the seventh grade has a median age of 13.5 years and scores 7.5 Thorndike. In Newport News the seventh grade median age was 13.5 and the score 7.6. Similarly, the median age of fifth grade pupils in Portsmouth is 11 years, and the score was 5.8, while the median age of the sixth grade in Nor-



**SOME REASONS FOR POOR HANDWRITING IN THE
RURAL SCHOOLS OF VIRGINIA**

folk¹ is 11.5 and the median score is 6.9. Further selection of classes which score high would be comparatively easy.

In summary it may be said that the condition of reading in Virginia city schools is fairly satisfactory. Such deficiencies as do exist will be easily adjusted when once attention is called to the situation. In the rural schools, however, there is a deficiency that should be met by vigorous remedial measures.

HANDWRITING

Tests in handwriting were given to all elementary school pupils examined from the third to the seventh grade inclusive. The papers of these pupils were evaluated as to quality of performance according to the Starch scale for the measurement of handwriting. The results are shown in Table 44 which gives also the Starch standards based on the results of tests in a large number of American cities.

Table 44

Quality of handwriting in the rural and city schools (white) of Virginia compared with the Starch Standards

Virginia rural one room.....	.....	.....	8.8	9.4	10.0	9.9	10.4
Virginia rural four room and over.....	.....	.....	9.3	9.5	10.0	10.5	11.0
Virginia city.....	.....	.....	9.5	9.4	10.2	9.8	11.5

VIRGINIA GRADES	I	II	III	IV	V	VI	VII
-----------------	---	----	-----	----	---	----	-----

STANDARD GRADES	I	II	III	IV	V	VI	VII	VIII
--------------------	---	----	-----	----	---	----	-----	------

Starch Standards	9.7	10.3	10.9	11.4	12.0	12.5
------------------	-------	-------	-----	------	------	------	------	------

In quality of handwriting the Virginia scores are uniformly low. The seventh grade score for city schools is 11.5. This is the highest score made by any group and it corresponds approximately to the Starch Standard for the sixth grade.

¹ Norfolk City has an eight-grade elementary school.

The standard of progress for the Starch scale is about six-tenths of a scale step per year. In the third grade the Virginia city children are within two-tenths of a scale step of the standard. Because of the seven-grade program they should be above rather than below. It is important to note that the fourth grade city children did not write as well as the third and that the fifth grade children wrote better than the sixth. The scores are, therefore, not only lower than they should be but the progress is irregular.

The scores for rural schools having four or more rooms compare favorably with those for city schools and the progress is regular from grade to grade. The average progress is four-tenths of a scale step per year, which is less than it should be by Starch Standards. The one room country school shows the poorest record.

SPELLING

For the tests in spelling each child wrote twenty words pronounced by the examiner. The words were chosen from the Ayres Scale in such a fashion that the test constituted a graded series with easy words at the beginning and difficult words at the end. All words were such as were known to be within the writing vocabulary of elementary school children. In the final scoring each child was marked on the ten words best adapted to his school grade. The average percentage score for each grade as indicated on the Ayres Scale was 66.6. This is the median for 84 cities.

The results of the test are shown in Table 45.

The Ayres Standard based on results from 84 cities is a mid-year score. It is proper, therefore, to compare it with the mid-year or first half year Virginia scores. These are available only for the city schools. All other Virginia scores are for the end of the year.

Each grade was scored on words adapted for that grade and upon which the median score was 66.6. For any class to be up to standard, therefore, its median score should be this figure at the mid-year. For the scores directly comparable (Virginia city first half-year) there is just one grade (the fourth) which equals or exceeds the standard. The Virginia city second half

year whose scores should exceed this standard does exceed it in three out of the five grades. Similarly the third and fourth grade of the four room school exceeds the mid-year standard.

The most notable deficiencies are in the one-room school (all grades) and in the seventh grade for every group tested. In three cases the deficiency is a year or more of progress as measured on the Ayres Scale.

Table 45

*Spelling scores of the rural and city schools of Virginia (White)
compared with the standard scores of 84 cities*

Virginia rural one-room.....	.....	.....	61.9	54.1	56.8	54.6	52.6
Virginia rural four-room and over.....	.....	.....	71.8	68.1	61.5	62.6	58.7
Virginia city first half year.....	.....	.....	57.8	67.0	63.5	57.3	58.6
Virginia city second half year....	.....	.....	69.6	63.8	68.3	69.5	63.1
VIRGINIA GRADES	I	II	III	IV	V	VI	VII	
STANDARD GRADES	I	II	III	IV	V	VI	VII	VIII
Ayres Standard..	66.6	66.6	66.6	66.6	66.6	78.2

ARITHMETIC

Are Virginia children acquiring a knowledge of and skill in the use of arithmetical processes? To answer this question we have data from the Woody tests. Judged by the standard scores in these tests the pupils in the schools of Virginia are not receiving as good instruction as they are entitled to, for, as a whole, they rank low. Doubtless, the most fundamental arithmetic ability which children acquire in school is the ability to add. The Woody Standard for eighth grade children made by pupils at the beginning of the eighth year is 18.5. This should be nearly equalled by Virginia children at the end of the

sixth year, since the latter have but one more year of elementary schooling, due to the seven year course. Virginia children do not measure up to this standard. The average seventh grade score for Virginia city children at the end of the year is 15.9 which is the sixth grade Woody Standard for the beginning of the year, and it is 15.1, or less than sixth grade Woody Standard for the seventh grade, in the best graded rural schools. For the one room rural schools it is only 13.5. The results of the tests may be seen in Table 46.

Table 46

Showing the scores of Virginia white children in addition, compared with the standards for grades three to seven (Woody Arithmetic Scales)

Virginia rural four-room and over.....	.....	.....	8.3	11.2	12.7	13.9	15.1	
Virginia city sec-half year.....	.....	.....	9.4	12.4	14.4	15.2	15.9	
VIRGINIA GRADES	I	II	III	IV	V	VI	VII	
STANDARD GRADES	I	II	III	IV	V	VI	VII	VIII
Woody Standards	.....	.....	.....	11.0	14.0	16.0	18.0	18.5
Pittsburgh (mid-year).....	.....	.....	.....	12.3	14.5	16.0	16.7	.....
Seattle.....	.....	.....	.....	11.5	14.6	15.7	16.6	17.2

If we measure the Virginia schools by the Woody Standard we find that they are below the same numbered grades an average of 1.3 problems for the non-city schools and .3 problems for the city schools. The real deficiency of the Virginia children is greater than this however since a fifth grade in Virginia is supposedly more advanced than a fifth grade in the eight year school.

In interpreting the scores in this table it is necessary to keep in mind the general over-age of Virginia children, which makes their deficiency greater than would appear from the table. In

the seventh grade of Virginia rural schools the average age of pupils is $14\frac{1}{2}$ years and this score is 15.1 or about midway between the Woody Standards for the fifth and sixth grades at the beginning of the year. As compared with either Seattle or Pittsburg both city and non-city scores in Virginia are lower for every grade than are those of the two cities mentioned and the inference is that the condition of the teaching of addition in the Virginia schools is in need of distinct improvement.

What is true of addition is generally true of the results in subtraction, multiplication and division.¹ Rarely do the Virginia scores equal the Woody standards. As compared with good city schools throughout the country they are almost uniformly low.

As in the case of reading the comparison of the average score obscures the fact that certain schools make good records. The Robert E. Lee School at Norfolk² scores 16.4 in the 6B grade, which is approximately the Woody Standard, and the Park Street School in Roanoke scores 12.2 in the third grade, which is above the third grade Woody Standard. Other instances of good scores could be cited. The fact that there are some schools scoring above the median, however, implies that there are an equal number of children below. It would be an easy matter to select from among the schools of practically any school division where the tests were given, some which fell much below the Virginia average.

CLASSIFICATION OF PUPILS

The modern school has developed extensively the system of teaching children in groups. With the extension of schooling to large numbers there has not yet appeared any generally accepted way of avoiding the teaching of from ten to forty pupils the same subject at the same time. The method has always presented grave difficulties because it is not easy to bring together pupils with like minds and of equal stages of development. Age is not a sufficient criterion for such grouping because some children develop more rapidly than others do.

¹ Details of the scores in those processes must be reserved for the special report.

² Norfolk City has an eight-grade elementary school course.

The ability to pass the ordinary school examination is not sufficient because some children can do much more than the examinations require. The teacher's judgment is not always correct because the ordinary methods of observation employed by teachers are not sufficiently accurate to detect real differences in ability. The usual tendency of teachers is to rate dull children better than they are and to rate superior children lower than they deserve. While all these criteria (age, examinations, teachers' judgments) are helpful means of classification, they are inadequate measures and frequently lead to such incongruous grouping as make effective class instruction impossible.

That educational work in Virginia suffers from such incongruous grouping of children is easy of demonstration. Particular attention will be given to this subject in the special report on tests and measurements, but certain illustrative cases may be given here. The Survey has available for a study of this situation not only the results of the group examinations, but also individual examinations on about 2,000 children. These individual examinations were made with the Stanford-Binet tests and the results are stated in terms of mental age of the individual children, a mental age of six meaning a mentality equal to that of the average six year old child.

To illustrate a common situation, we may take the Glen Allen School in Henrico County. The third grade in this school is composed of twenty-eight children all of whom were examined with the Stanford-Binet tests. The median chronological age of the group is 10.2 years. The median mental age is 9.5. It is therefore an approximately normal mental group. There is, however, one child in the group who has a mental age of 8.1 years, and another whose mental age is 12.4, the other children being of different mental ages between these two extremes. There is a mental difference between the two children mentioned equivalent to the mental growth which a normal child makes in four years. It does not require much insight to know that these two children require different teaching methods. One of them is the equivalent of an average second grade child, and the other is equal to the average child in the sixth grade.

The condition of this Glen Allen class is not peculiar. In grade 4B of the Ginter Park School (Richmond) there is one

child with a mentality of 14 years and 3 months, and another whose mentality is that of a child nine years and seven months old. In the Highland Springs fifth grade of forty-six pupils, nine read equal to the Thorndike Standard for the third grade, and five others read equal to the standard for the sixth grade. Somewhat similar conditions can be found in practically any school.

As indicated earlier, such conditions are not peculiar to the schools of Virginia, but their existence here in a somewhat aggravated form, particularly in the rural schools, demands attention in this chapter.

The best general view of the situation may be obtained from the results of the Delta 1 tests. Experience with this test shows that it indicates to a high degree and with a fair degree of accuracy the general ability of children to do school work.

In Table 47 are given the median grade scores for Virginia city children.

Table 47

Showing the median scores made by white children in the cities of Virginia on the general examination (Delta 1).

Grade.....	.....	.....	III	IV	V	VI	VII
Scores.....	.....	.....	38	58	77	92	103

If we examine the scores in this table we see that there is a step from one grade to the next of almost sixteen points, a little more in the lower grades and a little less in the upper grades. The fifth grade score is 77. We may interpret these figures as meaning that an average fifth grade child is one whose score is approximately nineteen points above the score for the fourth grade and about sixteen points below the score for the sixth grade. If a fifth grade pupil should exceed these limits of variation he should advance into the sixth grade or drop back into the fourth grade.

Now what do we find in an examination of Virginia's fifth grade classes? Only random cases may be cited. The 5A class of twenty pupils in the Midway School at Charlottesville has

four pupils who score 38 or less, which is about third grade ability, and it has one child who scores 94 or approximately sixth grade quality. Of fifteen pupils in the 5B class in one Portsmouth school five pupils score 95 or better, about sixth grade standard, and three pupils score below 70. Of fifteen 5B pupils in the Commerce Street School of Roanoke four have scores equal to sixth grade score or better, and there are three as low as or lower than the fourth grade median. The distribution is greater in the rural schools than in the cities. Of seven hundred twenty-three pupils in fifty-five schools having four or more rooms, 46 are below the third grade median; 146 are between the third and fourth grade medians; twenty-one are as good as the seventh grade medians; and twenty-five others score equal to the sixth grade or beyond. The remaining 450 are between the fourth grade median and the sixth grade median. Yet, all of these pupils are ranked as fifth grade pupils and must follow the same course of study and are expected to complete it in two additional years. Forty-six of them under good conditions could complete it in one year. For forty-six others it will require four years. Situations of this sort can be shown for any grade and in almost any class examined.

Radical and definite steps should be taken for improvement. First of all there should be an improvement in the methods of determining the classification. It is not enough that a child has reached a certain age, that he has been in school a certain number of years, that he has followed a particular course of study and passed the examinations set by his teachers. All of these matters are important but the knowledge which a teacher gets about a child from these sources should be supplemented by the pupils' scores in standard achievement tests, particularly in reading, and by his scores in mental tests where these can be effectively given. If teachers and principals will learn to use these standard mental and achievement tests they will be better able to group pupils according to capacity than they are now doing.

A thorough going attempt to classify children will inevitably lead to the organization of special classes. In the first place the feeble minded will be separated and should be segregated. For such children the State should establish a State school

where they may be gathered together and taught under custodial conditions such things as they may learn. Aside from these there are a number of backward children in every school, who should if possible be provided for in opportunity classes. Not alone for backward children but for those of superior ability should there be special provision in separate classes where they can progress in educational development according to their capacity. The best practice would seem to indicate the organization of classes for superior children about the fourth or fifth grade.

Even where the school conditions do not allow for special classes much can be done by the regrouping of pupils in the regular classes. The bright pupils can be put forward where they will quickly make up any omissions they may have suffered by skipping. The weaker pupils can be kept together to be taught by methods adapted to their level of development.

INFERIOR RESULTS IN RURAL SCHOOLS

About four-fifths of all school children in Virginia receive their education in non-city schools and about 44 per cent. are enrolled in one-room or two-room schools. For that reason the character of the instruction provided and the results of that instruction are of special importance.

All the evidence from the tests given indicate that the work of the rural schools, is of a very inferior character. Comparative scores are given in Table 48.

The inferiority of the small rural school is apparent from the figures given. In reality that inferiority is even greater since in all non-city schools children are on the average about a year older than city children and in one-room schools children are on the average about a year and one-half older than city children in each of the upper grades of the elementary school.

In arithmetic the inferiority of the one-room school is perhaps most marked, children in such schools being on the average one grade behind children in the larger non-city schools and one and one-half grades behind children in the city schools.

NEGRO SCHOOLS

As in the case of schools for white pupils effort was made to measure the achievements of pupils in various types of schools

for colored pupils. One-room rural schools, graded rural schools, and city schools for colored children were examined with the full set of tests.

Table 48
Comparing achievement in rural and city schools (white)
(Median scores)

SUBJECT	Rural Schools		City Schools
	One-room	Four-room or more	
Grade III.....Addition.....	6.8	8.3	9.4
Spelling.....	61.9	71.8	69.6
Reading.....	3.9	4.3	4.9
Handwriting.....	8.8	9.3	9.5
Grade IV.....Addition.....	8.4	11.1	12.4
Spelling.....	54.1	68.1	63.8
Reading.....	5.0	4.9	5.1
Handwriting.....	9.4	9.5	9.4
Grade V.....Addition.....	11.2	12.7	14.4
Spelling.....	56.8	61.5	68.3
Reading.....	5.4	5.6	5.6
Handwriting.....	10.0	10.0	10.2
Grade VI.....Addition.....	11.3	13.9	15.2
Spelling.....	54.6	62.6	69.5
Reading.....	6.3	6.3	7.1
Handwriting.....	9.9	10.5	9.8
Grade VII.....Addition.....	13.6	15.2	15.9
Spelling.....	52.6	58.7	63.1
Reading.....	.....	6.9	7.3
Handwriting.....	10.4	10.0	11.5

Unfortunately no comparative scores in any of those tests are available for negroes outside of Virginia and the only comparison possible is that with the scores made by white children in Virginia and elsewhere. The scores made are presented in Table 49 and comparison made with the scores of white children.

Table 49

Showing median scores for colored children compared with those for white children

SUBJECT	Rural Schools		City Schools	
	Colored	White	Colored	White
Grade III.....				
Addition.....	8.3	8.2	7.8	9.4
Spelling.....	61.5	61.9	62.4	69.6
Reading.....	4.1	4.1	3.1	4.9
Handwriting.....	8.7	8.8	9.6	9.5
Grade IV.....				
Addition.....	10.7	10.3	12.5	12.0
Spelling.....	58.2	54.1	56.2	63.8
Reading.....	5.1	4.9	5.1	5.1
Handwriting.....	9.0	9.4	10.3	9.4
Grade V.....				
Addition.....	11.3	12.7	14.1	14.1
Spelling.....	50.4	56.8	63.5	68.3
Reading.....	5.5	5.4	5.5	5.6
Handwriting.....	9.6	10.0	11.2	10.2
Grade VI.....				
Addition.....	13.5	13.9	14.6	15.4
Spelling.....	53.9	54.6	59.5	69.5
Reading.....	6.4	6.2	6.7	7.1
Handwriting.....	10.1	9.9	10.8	9.8
Grade VII.....				
Addition.....	14.7	15.1	14.6	16.0
Spelling.....	.....	52.6	62.9	63.1
Reading.....	6.5	6.9	6.8	7.3
Handwriting.....	.....	10.4	12.3	11.5

An examination of the table shows that the apparent differences are not very great between the achievements of colored children and those of white children. It must be remembered, however, that in almost every grade considered colored pupils are on the average a year or more older and have attended school on the average a year longer than the white pupils. (See chapter IV.)

CAUSES OF POOR WORK

Manifold causes operate to produce the results shown in this chapter. While thorough analysis of them will not be attempted here, attention may be called to certain salient conditions which should be overcome in the interest of an improved school product. Most of these have received extended discussion elsewhere in this report. Most of what is here said applies primarily to the rural schools where improvement is most obviously needed. Outstanding among all the probable causes of poor work may be mentioned (a) the irregular entrance of pupils into school and their irregular attendance thereafter, conditions which lead to non-promotion, excessive overage and elimination from school before the completion of the elementary course; (b) the short school term which prevails in many districts; (c) the lack of a sufficient number of well trained teachers; (d) the large number of one-room schools; (e) the absence of uniform standards of achievement for the fundamental subjects in the elementary grades; (f) the inadequacy of methods of classifying children in school; (g) the dearth of special classes for unusual children; (h) the inadequacy of supervision. Lying back of these causes is the inadequate financial support which the schools receive.

RECOMMENDATIONS

Most of the recommendations to be made here are made elsewhere in this report on the basis of other data than that of tests and measurements. Their repetition here merely brings them into relation to the test results. Chief among the necessary changes are (a) the passage of an effective compulsory education law; (b) the lengthening of the school term to a one hundred eighty day minimum; (c) improvement in the qualifications of teachers; (d) the increase of supervision, particularly of the rural schools; (e) a reduction of the one-room schools wherever possible in favor of consolidation; (f) the restriction of one-room schools to five grades; (g) improvement in the classification of children; (h) the employment of standardized educational and mental tests in the classification of children; (i) the organization of special classes for backward and superior children; (j) the creation in the State Department of a bureau of educational investigation.

CHAPTER VII

THE TEACHING FORCE IN VIRGINIA

IT requires no argument to show that education is fundamentally determined by the character of the teachers charged with the responsibility of providing instruction. In this chapter an attempt is made to analyze the character of the teaching force in Virginia, the following important questions being considered. (i) Are teachers provided in sufficient number? (ii) Is the teaching force sufficiently stable to ensure effective instruction? (iii) Are the teachers of Virginia properly educated and trained? (iv) Is the pay of teachers high enough to attract and retain capable men and women? (v) How may necessary improvements be brought about?

i.—ARE TEACHERS PROVIDED IN SUFFICIENT NUMBER?

The first question calling for answer in an analysis of the teaching force of public schools in Virginia is this: Are enough teachers provided to furnish instruction to the children of the State? For the present, considering teacher adequacy from a quantitative viewpoint only, and deferring the consideration of quality, we find the situation to be as shown below.

In Table 50 are presented figures showing the number of pupils to each teacher in Virginia for various years during the last decade. Those figures show that on the average there are about thirty-three white pupils enrolled for each white teacher employed, and about forty-eight colored pupils enrolled for each colored teacher employed, or about twenty-three white pupils in average daily attendance for each white teacher employed, and about thirty colored pupils in average daily attendance for each colored teacher employed. *For the State as a whole and on the average* apparently the number of white teachers employed is relatively satisfactory, but the number of colored teachers is inadequate and would be impossibly inadequate if attendance were brought up to any reasonable standard.

It is obvious that in measuring teacher adequacy good averages may easily conceal a very bad situation. Thus twenty schools, ten of which had each one teacher for every ten pupils, and ten of which had each forty pupils for each teacher, would show an average of twenty-five pupils for each teacher, though the ratio of teachers and pupils in each school would be very undesirable. Now very many schools in Virginia indicate just such extremes, and, therefore, the county-wide ratios (for 1917-18) shown in Table 52 are very significant. That table shows that in twenty-three counties of the State the number of white pupils in average daily attendance to each white teacher is less than fifteen, while in other counties the ratio increases until at the other extreme one county has forty-nine white pupils in average daily attendance per teacher employed. In four counties there are from forty-one to forty-five colored pupils in average daily attendance for each teacher employed, and one county caps the climax by having sixty-three colored pupils in average daily attendance for each colored teacher employed in the county.

In individual schools the number of pupils under the charge of one teacher varies widely—and necessarily so. There is no justification, however, for county-wide extremes indicated above or for the extremes indicated by the figures in Table 53, which show the number of pupils per teacher in 738 non-city schools of different types in 1917-18. Those figures show that about eighteen per cent of the white schools and fifty per cent of the colored schools investigated were above the dead line (forty pupils to a teacher) in regard to the number of pupils enrolled under one teacher, and that about seven per cent of the white schools and twenty-three per cent of the colored schools were above the dead line (thirty pupils to a teacher) as measured by the number of pupils in average daily attendance.¹ The figures also show that absurdly small classes are not confined to one-room schools, nor impossibly large classes to the larger schools. In many small town schools, where all grades are taught in the same building, the teacher of the lower grades frequently has three or four times as many pupils as all high school teachers.

¹ In a one-room colored school visited were found 110 pupils enrolled and 85 pupils present in a room 17x23 feet.

It is as well here, perhaps, as anywhere to call attention to the fact that male teachers in the elementary schools of Virginia as elsewhere are decreasing in numbers and proportions almost to the point of disappearance. In Table 54 are presented figures showing that the proportion of male teachers in public schools of all types and for the entire State of Virginia has decreased from about two-thirds (64 per cent for whites and 67 per cent for negroes) in 1871 to about one-eighth (12 per cent for whites, and 14 per cent for negroes) in 1918. Among 1,592 white teachers in 798 county schools intensively investigated only 143 men teachers (9 per cent of the total number of white teachers) were found, and among 366 colored teachers in 272 county schools only 53 men teachers (about 14 per cent of the total number of colored teachers) were found. Few country children ever come in contact with men teachers.

This is not the place to discuss the relative qualities of men and women teachers, and in the presentation of the above facts there is no intent to raise the question. The facts presented for Virginia are not worse than are found in most parts of the country—in fact the proportion of men teachers is larger in the South than in most parts of the country. Nevertheless, it is for the people of Virginia to determine whether or not they wish men teachers to disappear from the schools of the State. The reason for the present situation is, of course, primarily, a matter of the low salaries paid.

Summarizing the matter of the supply of teachers (numerically considered) we may say that on the average the number of teachers is in general fairly satisfactory for white schools, but very unsatisfactory for colored schools. Averages, however, are very misleading in this connection, and it is not at all unusual to find excessively small classes and excessively large classes. For the waste which comes through numerous small schools the remedy lies in many cases in more and better school consolidation. When excessively large classes jeopardize or destroy efficient instruction, the remedy must be found in an increase of the teaching staff. No teacher should ever be expected to care for more than forty pupils enrolled, or for more than thirty pupils in average daily attendance. A reasonable standard is about twenty-five pupils to a teacher.

ii.—IS THE TEACHING FORCE STABLE?

Industrial and business concerns have recently come to realize that the size of the "labor turnover" (i.e., the number of new workers who must be engaged, in many cases only to be replaced in a short time) is one of the most serious factors limiting the efficiency of their business and imperilling their dividends. With respect to the "teacher turnover" public school administration shares this problem with other enterprises and the same business principles apply here as in the industrial or commercial fields. Where teachers change from year to year efficiency can no more be secured than where important employees in an industry or business change frequently. To the general consideration must be added the fact that no small part of the State's investment in the training of teachers is wasted (as far as the schools are concerned) when teachers receive a relatively expensive training only to teach for a year or two.¹

What is the "teacher turnover" in the schools of Virginia?

Unfortunately this question cannot be answered as definitely as the survey staff would desire, since the survey was made during an "off year" when the usual instability of the teaching force of the State was exaggerated by the abnormal industrial and commercial conditions, due to war. Investigation showed that for the school year 1918-19 the situation was as indicated by the figures in Table 55. Those figures show that:

(1). In non-city white schools of all types between one-fifth and one-quarter of the teachers had had no teaching experience before this year, and one-sixth had had only one year of previous experience. In colored schools of the same classes about one-fifth had had no experience, and about one-ninth had had only one year of experience in teaching before this year. For white teachers the median number of years experience prior to this year was 1.4 years, for colored teachers it was four years.

(2). In one-room schools more than one-third of the white teachers had had no experience before this year, and fifteen

¹ Emphasis here merely on the business aspect of the situation should not obscure the great importance of other aspects which are involved.

per cent had had only one year's experience. In schools of this class between one-fifth and one-quarter of the colored teachers had had no experience before this year, and one-ninth had had only one year's experience before this year. For white teachers in one-room schools the median years experience before this year was less than one year. For colored teachers in schools of that class the median was three and one-half years.

(3). In non-city high schools (white only considered here) the teaching force was fairly stable, the median years of experience before this year being over four and one-half years.

It is true that these figures represent abnormal conditions. But it is also true that the normal condition of the teaching force of Virginia is one of great instability. In school after school in the rural districts visited by members of the survey staff it was reported that the same teacher rarely remained more than one year in the school and it is not without significance that the State Department issues about six thousand certificates¹ annually for a school system having in all less than fourteen thousand teachers. The certificating officer of the State Department estimates the number of new teachers entering the State system at between twenty-five and thirty-five hundred teachers per year.

The evils of a markedly unstable teaching force or one requiring a large proportion of new teachers each year are numerous: (a) the education of children suffers greatly under the instruction of new and inexperienced teachers; (b) proper grading in the schools is seriously handicapped where each new teacher must learn the children anew; (c) the identification of the teacher with community life is impossible and, therefore, her efficiency is greatly curtailed; (d) the general status of education must always remain at a relatively low level when inexperienced teachers merely replace other inexperienced teachers; (e) the development of a professional spirit and of an esprit de corps is impossible; (f) the work of the teacher-training institutions is seriously handicapped and to some extent wasted in turning out teachers who teach for one, two, or three years

¹ Including extensions, renewals, and higher grade certificates issued in place of lower grade certificates on the basis of improved qualifications.

and then withdraw from the profession; (h) certificating standards are always kept low through the necessity of providing a group of teachers numerically adequate for the demand. There is no hope of supplying with proper training the over-large number of new teachers required annually under present conditions.

Why do not teachers remain in the profession? The number and proportion of those leaving is large because (a) the pay of teachers is so low that the profession cannot compete for workers with relatively low-grade occupations requiring little or no training (see below in this chapter); (b) the status of the teacher is not well recognized in general; (c) living conditions are frequently unsatisfactory in some parts of the State, and (d) the great majority of teachers being women many of them marry and then cease to teach. The remedies for the present situation, are (a) raising the pay of teachers to a level sufficient to retain them, (b) better recognition by the community of the teachers' work, (c) provision for better living conditions in the rural districts, (d) a larger proportion of men teachers, (e) provisions for tenure of office.

iii.—ARE TEACHERS WELL EDUCATED AND WELL TRAINED?

Contact with thousands of teachers in all parts of the State has convinced members of the survey staff that as a body the public-school teachers of Virginia are intelligent and earnest men and women, conscientiously laboring to perform properly the tasks in which they are engaged. As in any other group of teachers, or in groups of people engaged in any other business or profession, all sorts and conditions are found, ranging from those teachers who are well trained and infused with a professional spirit which amounts to consecration, to those teachers who are in every way totally unfitted for the task of teaching. Nevertheless, in the native intelligence, personal character, and earnestness, Virginia teachers are fully on a par with the teachers in other parts of the country.

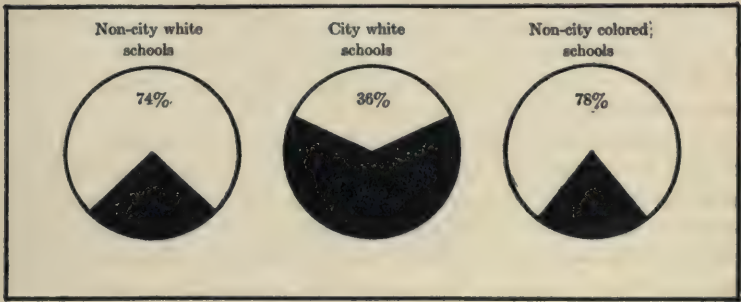
Where, then, lies the cause of the unsatisfactory condition which is recognized by the teachers and citizens of Virginia, and is obvious to the most casual observation of an outsider? The cause for the present unsatisfactory condition is found in

the fact that as a whole the teaching force of the schools in Virginia is woefully lacking in the education and training essential for good teaching.

Figure 6

Showing the proportion of elementary school teachers having not more than four years of high school education

See Table 56



This may be seen from the figures presented in Table 56 which for 1918-19 shows the numbers and per cents of elementary school teachers who have received various amounts of education and professional training. From these figures it is seen that:

(1). In the non-city elementary schools more than one-fifth of the white teachers and nearly two-fifths of the colored teachers have received an education which is only the equivalent of two years of high-school education. In those schools nearly three-quarters of the white teachers and more than three-quarters of the colored teachers have received an education which is the equivalent of not more than a four year high-school education. The median amount of education and training received by white teachers in such schools is slightly more than the equivalent of three grades of high-school education, and the median amount of education and training received by colored teachers in non-city schools is about the equivalent of two and one-half years of high-school education.

(2). In city elementary schools more than one-third of the white teachers have received education and training not higher than the equivalent of four grades of high-school instruction, and the median amount of education received by such teachers is the equivalent of one year of college or normal school. This situation is true of large cities as well as small, though not equally applicable to all.

(3). High-school teachers in large cities are for the most part college-trained men and women. In the smaller cities their education and training on the whole is less satisfactory. For non-city high schools the figures presented in Table 58 show the relative numbers and per cents of non-city high-school teachers in eighteen counties of Virginia who have had various amounts of education and professional training. There it may be noted that the training of such teachers is very far from satisfactory, the median number of years of education received being less than two years beyond the high school, and nearly fifteen per cent having received an education no higher than the older pupils of the schools in which they teach.

It is true that the figures presented in Tables 56 and 58 are those for the school year 1918-19 when conditions were very unsettled and the supply of teachers of any sort was very much curtailed by social and economic conditions. It is also true, however, that figures provided by the State Department for 1916-17 do not indicate a situation noticeably different. Thus the figures presented in Table 57 show that less than one-half of the teachers of the State in 1916-17 had had an education above that represented by the high school.¹ The general level of experience may have been lower in 1918-19, but it does not appear that the level of education and training was materially changed.

The qualifications of Virginia teachers may also be seen from the certificates which they hold. Figures presented in Table 72 show that in 1918-19 more than two-fifths of the white teachers, more than two-thirds of the colored teachers, and more than one-half of all teachers in the State are entitled to hold only

¹ An examination of similar figures for 1913-14, 1914-15, 1915-16 shows that 1916-17 was not a typical year. See Report of the (Virginia) State Superintendent of Public Instruction 1915-16, page 84.

First Grade Certificates, Second Grade Certificates, or Local Permits. This means that less than one-half of the teachers of Virginia have received at best not more than a high-school education. They also show that more than one-half of the teachers in the State are without any professional training, except in some cases what they may have received in summer institutes or summer schools.

Figures presented in Tables 73 and 74 show that the situation was not appreciably different in 1917-18. In that year one county (Stafford) did not have a single teacher entitled to hold a certificate above the "First Grade," and in all, seventeen counties in the State had each less than one-fifth of its teachers entitled to certificates higher than First Grade.

IV.—IS THE PAY OF TEACHERS HIGH ENOUGH TO ATTRACT AND RETAIN CAPABLE MEN AND WOMEN?

The laws of wages and the laws of supply and demand operate just as surely and just as effectively in the case of school teachers as in the case of any other body of workers. The problem of the teacher's pay cannot be solved on the basis of what people think teachers deserve, or on the basis of what teachers believe that their services are worth. In the long run and for the State as a whole the problem is fundamentally an economic problem and must be solved by recognized economic principles. In other words, the pay of teachers is a plain business proposition. On the one hand the people of the State desire to purchase certain skilled service; on the other hand certain men and women have that skilled service for sale or are willing to equip themselves with the requisite skill if the returns therefrom are large enough to warrant the necessary effort.

Are the salaries paid to school teachers in Virginia high enough to secure capable teachers and to retain them?

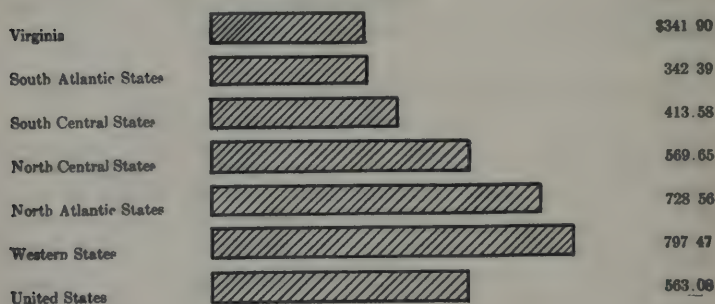
In Table 59 are presented figures showing the average annual salaries paid to teachers in Virginia for the past six years. The figures show that the average annual salary paid to white teachers is approximately \$351 for non-city schools, and \$658 for city schools, while the average annual salary paid to colored teachers is approximately \$175 for non-city schools, and \$391 for city schools.

The latest available returns (1915-16) permitting comparison indicate that Virginia occupies a position about seventh from the bottom of the list of States with respect to the average monthly or yearly salaries paid its teachers, the average annual salary paid in Virginia being less than half that paid in the North Atlantic or Western States. (Cf. Table 60.)

Figure 7

Showing for 1915-16 (latest comparative figures available) a comparison of the average annual salaries for teachers in Virginia and elsewhere

See Table 60



Nowhere, however, are averages more deceptive measures of a central tendency than in the case of salaries, where one large salary paid to a principal or teacher may effect two or more very low salaries paid. In Table 61 are presented figures showing for 1917-18 the number of counties in Virginia having various average records for the annual salaries of teachers. These figures show that: (a) the median averages for non-city schools were \$348.76 for white teachers and \$177.48 for colored teachers; (b) county averages vary for white teachers' salaries all the way from \$201-\$225 to \$576-\$600, and for colored teachers' salaries all the way from under \$100 to \$401-\$425; (c) more than one-quarter of the counties have average records of less than \$300 for the annual salaries of white teachers and of less than \$150 for the annual salaries of colored teachers.

For individual teachers the extremes of salary are shown in Table 62 for elementary schools, and in Table 63 for high schools

of Virginia in 1918-19. Is it strange that district boards and superintendents found difficulty in securing and retaining teachers when the annual salaries paid were under \$250 for one-eighth of the white teachers, and one-half of the colored teachers in non-city elementary schools?

There can be no doubt that for the State as a whole Virginia is not securing and retaining capable, skilled teachers. There can also be no doubt that the principal reason for present conditions is found in the low wages paid to teachers. The fact is that there is no possibility of maintaining even a reasonably satisfactory system of public schools in the State of Virginia as long as the wages of teachers on the average are lower than those paid to unskilled labor.

V.—HOW MAY NECESSARY IMPROVEMENTS BE BROUGHT ABOUT?

There can be no doubt that, from a professional viewpoint and for the State as a whole, the teaching force in the public schools of Virginia is at a very low level—a level so low that there is no hope of effective education in the State unless and until conditions are very decidedly improved.

How can these conditions be improved? How can Virginia attract and retain a sufficient number of adequately educated and properly trained teachers? There is but one answer to these questions—by making the rewards for such service sufficient.

How can these rewards be made sufficient? Several means have been employed in other States: (1) increasing the pay of teachers; (2) encouraging stay in the profession by provision for teachers' pensions; (3) encouraging stay in the profession by provision for tenure of position in the case of experienced and qualified teachers; (4) making more satisfactory the conditions of teachers in rural districts. The relation of teacher certification and teacher training to the problems of improving the teaching force are considered in the next chapters.

(1). *Increasing the Pay of Teachers:* The laws of supply and demand, and the laws of occupational competition are not suspended in the case of teachers in Virginia. The State gets and will continue to get exactly what it pays for—no more and no less in the long run. At present it is receiving very inferior

service for what very inferior service costs. It must receive very much better service and it must pay what better service costs.

The teacher's pay must be raised very materially. What should be the amount? To this question no single answer can be given, since the economic conditions of living and occupational competition vary widely for men and women, for different types of teaching, for whites and negroes, in different parts of the State, and in communities of different types. At present teachers receive an annual income (or monthly income) from their profession far lower than workers in other professions demanding special training, and the average returns from teaching in Virginia are less than from most forms of unskilled labor. The amount of increase in teachers' pay must be sufficient to raise it to the level of pay in those occupations demanding an equivalent amount of training and an equivalent amount of expenditure for that training. In the judgment of the survey staff, properly trained and adequately educated teachers cannot be provided in Virginia unless the minimum salary for well-experienced teachers holding the highest certificate approximates one thousand dollars per annum, and unless the minimum salary of any full-time teacher employed approximates \$500 per annum.

Undoubtedly many teachers in Virginia at the present time are not worth \$500. The surest way to eliminate such teachers, however, is to set the pay of teachers at such a minimum mark that capable teachers will be attracted and drive out the inferior teachers.

Since 1913, according to the U. S. Bureau of Labor Statistics,¹ the cost of food has increased one hundred per cent, the cost of clothing one hundred fourteen per cent and all commodities one hundred per cent. The average annual salary of teachers in Virginia was wretchedly low—less than a living wage—in 1913. Since then it has been increased less than thirty per cent, so that the discrepancy between the teacher's pay and a living wage has been increased rather than decreased within the past five or six years, salary increases having fallen far behind increases in the cost of living.

¹ Monthly Labor Review, United States Department of Labor, Bureau of Labor Statistics, May 1919, page 143.

(2). *Teachers' Pensions*: At present legal provision is made in Virginia for teachers' pensions payable for physical or mental disability after twenty years of service, or, if the teacher is placed on the retired list by the State Board of Education, after thirty years of service and after reaching the age of fifty eight for men or fifty for women. The fund is derived from one per cent compulsory contributions from each teacher employed, from annual appropriations by the State,¹ and from legacies, bequests, etc. The pension paid is one half of the average annual salary received by the retired teacher during the last five years of service as a teacher in the State, with a maximum of five hundred dollars.

In 1917-18, 430 retired teachers were recipients of pensions, the total amount paid in pensions that year being \$56,805.73, or an average annual payment of \$132.11 per retired teacher.² With a State-wide average annual salary of less than \$400 it is clear that the pension paid to retired teachers (most of which came from teachers contributions) cannot be a very significant item attracting capable teachers. With salaries approaching an adequate amount, however, the pension law, if reconstructed along the lines suggested at the close of this chapter, might very well prove a really effective instrument assisting in the development of a better trained and more stable teaching force.

It should be recognized that teachers' pensions are not based on philanthropy or charity. Neither are they bonuses. When given for disability they partake of the nature of insurance for the benefit of the teacher and of the State. When granted for retirement, teachers' pensions in the long run are nothing more and nothing less than partially deferred salaries, even if the entire amount of the pension were paid out of public funds and there were no direct contributions by the teachers themselves.

(3). *Improving Conditions for Teachers in Rural Districts*: Several factors tend to discourage young men and women from entering the service in rural schools: (a) the majority of rural schools are of the one-teacher type, demanding an amount of

¹ In 1918-19 the State appropriation was \$10,000.

² For sixty-three teachers retired on pension in 1917-18 the median annual pension was \$134.80.

labor out of all proportion to the wages paid; (b) the pay is low and the school term short; (c) the school buildings and equipment frequently are very poor; (d) it is frequently very difficult and sometimes all but impossible to secure satisfactory living conditions.

Remedies for present conditions may be found in: (a) reduction through consolidation of the larger number of one-teacher schools (See chapter XV); (b) increase of pay and extension of the school term (See chapter II); (c) the improvement of school buildings and equipment (See chapter XVII); (d) the maintenance of teachers' cottages in rural districts.

With the exception of teachers' cottages the improvements mentioned are considered elsewhere in this report. Teachers' cottages require consideration here.

Until living conditions are improved for teachers in many rural districts, it cannot be expected that capable men and women will go to those districts to teach or remain there. At present in many districts there is no possibility of teachers securing anything like satisfactory living conditions. In some cases they must live at a great distance from the school in which they teach. In other cases they are compelled to live in homes already overcrowded, and where they would never live if there were any alternative. In still other cases teachers have been forced to give up their positions either because they could find no place at all to live, or because such places as were available were intolerable.

In other States the only solution found has been the building of teachers' cottages and a few (18 or 20 up to 1918) have been built in Virginia. An extension of the policy already begun should do much to attract and retain capable teachers in rural districts which at present cannot provide satisfactory living conditions for them.

It should be noted that the building and maintenance of teachers' cottages need add little or nothing to the cost of maintaining schools in any district. The rent is, of course, reckoned in the teachers' remuneration. As a renting proposition teachers cottages are in a preferred class from an investment viewpoint, since occupancy is assured and the payment of rent guaranteed.

(4). *Tenure of Office*: Nothing is more disruptive of school organization and educational development than continual change in the teaching force. For that reason many States have made some provision for tenure of office for the teacher. In some States that provision has taken the form of a law guaranteeing retention in office after a specified period of service. In other States retention in office has been encouraged by provision for a salary bonus to teachers remaining more than one year in the same school.

In the judgment of the Survey Staff the State of Virginia should pass a law guaranteeing tenure of office, during good behavior, to every teacher holding a high-grade professional certificate who has performed satisfactory service for at least three years in the same school.

RECOMMENDATIONS

1. That steps be taken at once to increase the pay of teachers. The survey staff does not believe that any fixed salary schedule can be set for the State as a whole. It recommends, however, that the minimum annual salary for any teacher engaged in full-time service be set at not less than five hundred dollars, and a standard for the minimum annual salary of any teacher holding the highest grade certificate for his class of service and having had at least three years of experience be set at not less than one thousand dollars.

2. That the present teachers' retirement law be amended: (a) so as to make retirement, after at least twenty years of service, voluntary at the age of sixty or sixty-five, and compulsory at the age of sixty-five or seventy, or compulsory for disability at any time at the discretion of the State Board of Education; (b) so as to provide an annual appropriation of State funds equal to the amount of the teachers' compulsory contributions; (c) so that the retiring allowance shall be determined on a true actuarial basis with reference to the teachers' contributions and State appropriations, rather than on the basis of arbitrary proportions of the teachers' salary; (d) so as to provide for an equity clause in the case of teachers withdrawing without retirement allowance.

3. That the State, through building loan funds, encourage rural districts to establish teachers' cottages, those cottages to be rented to teachers at a rate not to exceed four per cent of the cost of construction plus one per cent of the cost of maintenance.

4. That a law be passed guaranteeing tenure of office, unless dismissed for proven cause, to every teacher holding a high-grade professional certificate (at present Collegiate Professional or Normal Professional) who has performed satisfactory service for at least three years in the same school.

NOTE—Recommendations concerning teacher training and teacher certification are made in the next chapter.

CHAPTER VIII

THE TRAINING OF TEACHERS

FOR the training of white teachers provision is made by the State at the four State Normal Schools for women (Farmville, Fredericksburg, Harrisonburg, and Radford), in the Department of Normal Training at the College of William and Mary (men and women) in the Department of Education of the University of Virginia (men only in the regular session), and in the Department of Agricultural Education of the Virginia Polytechnic Institute (men only). Several private institutions contribute graduates who become teachers. Richmond maintains a city normal school. Finally, a few public high schools provide a normal training department, subsidized by the State.

For the training of colored teachers the State maintains one institution, the Virginia Normal and Industrial Institute at Petersburg. Richmond also maintains a colored normal school supported and controlled by the City. In addition an attempt is made to provide some normal training work in the twenty-eight County Training Schools, some of which receive State subsidies. Since these are practically two-year high schools, the normal training is perforce very limited. As a matter of fact the great majority of colored teachers are without any professional training, and the supply of trained teachers from the State Normal and Industrial Institute and from privately endowed institutions is far below the demand.

i.—THE NORMAL SCHOOLS FOR WHITE WOMEN

The principal sources of supply for white teachers are the four State Normal Schools for Women at Farmville, Fredericksburg, Harrisonburg, and Radford.

(a). *Control:* Each of these normal schools was formerly under the control and supervision of a separate Board. In 1916 all four were placed under the control and supervision of a

single State Normal School Board. This was a step in the right direction. The next step is to place them all under the control and supervision of the State Board of Education as integral parts of the State System of Public Education.

It is not wise policy to have two separate Boards, one controlling the certification and service of teachers, the other controlling their training. One board—the State Board of Education—should have charge of the three correlated functions—the training, certification, and service of teachers. In no other way can the necessary unity of work be maintained.

(b). *Admission of Students:* The requirements for admission to full normal work in the State Normal Schools for Women is graduation from a four-year high school or its equivalent with sixteen units of high-school credit. That requirement sets as high a standard as is found in the country. However, a high-school department is maintained at each institution, and the consequent overlapping of functions to some extent obscures a clear-cut requirement for admission. Below it is recommended that the high-school departments of the Normal Schools be abolished.

On admission each student who is a candidate for free tuition is required to pledge herself to teach in the public schools of Virginia for at least two years after leaving the normal school. She is not, however, required to pledge herself to remain for the full normal course, nor to declare any such intention. As a matter of fact very many students enter the normal schools with the intention of remaining either for the high-school course only, or for one year only of the normal course, and purposing to leave after one or no years of normal instruction.

The State certification system encourages such action, and in some cases the normal schools make special provision for such students. The certification system is considered below. Here it is sufficient to recommend that no student be admitted to the normal schools unless she is ready to declare her intention of remaining for the length of the shortest professional course. No standards can be maintained when incomplete training is rewarded as at present.

(c). *Enrolments:* In Table 64 are presented figures showing enrolments at the four State Normal Schools for Women during

the regular session of 1918-19. Two facts are clearly shown: (1) that high-school students constitute nearly one-third of the total enrolments, nearly one-third of the enrolment at Farmville, nearly one-half of the enrolment at Fredericksburg, an almost negligible proportion at Harrisonburg, and nearly thirty per cent at Radford; (2) that the total enrolments are far below the numbers necessary if the normal schools are to meet the demand for trained teachers at all satisfactorily.

(d). *Graduates*: In Table 65 are presented figures showing the total number of graduates from the four State Normal Schools for Women from 1914 to 1918. Those figures show that nearly one-quarter of the total number of graduates of the past five years were not teaching in 1918-19. This does not mean that the normal schools are at fault. The reason is found in the low pay of teachers. Well educated teachers cannot afford to teach in Virginia.

(e). *High-school Departments*: Virginia is one of the few States still maintaining high school departments in connection with the normal-school courses. The present practice is a survival of the days when there were few high schools in the State. The time has come when the practice should be abandoned. Sooner or later the inevitable evils of its continuance would manifest themselves: (1) the lowering of normal-school standards; (2) a diminution or loss of that professional atmosphere which should permeate the normal school; (3) interference with the high-school development in the State; (4) expenditure of State funds for relatively high-grade normal instructors spending their time and energy on high-school teaching.

Some of the evils are already manifest. Weak or lacking high schools are not the whole justification for pupils from eighty counties and twelve cities of the State enrolled last year in high school departments of Virginia Normal Schools. Rather one may say that high schools are weak or lacking in some communities because the State maintains high school departments at the State Normal Schools. Again one cannot say that a truly professional atmosphere can exist, normal-school standards dominate, or State funds be advantageously spent when more than one-third of the total teaching time of the normal school staff of instructors is devoted to high-school work. (Cf.

Table 66). Finally, the demands of normal schools for larger accommodations and larger staffs must be considered with due regard to the fact that no small part of the accommodations already provided and no small part of the energies of the instructional staffs are devoted to high-school pupils.

(f). *"College" courses in the Normal Schools:* The normal schools of Virginia have never begun to supply the needs of the State for the training of elementary school teachers, either in point of number or with respect to the amount of professional training provided. Nor can they hope to do so within the next decade. Nevertheless, in 1916 the legislature and the State Normal School Board authorized the four State Normal Schools to train high-school teachers and to offer four-year "college" courses leading to the degree of Bachelor of Science in Education.

This was a most unwise step which should be retraced at once. The reasons against the present project are many and potent: (1). For many years the normal schools of Virginia will have enough and more than enough to do to provide well-trained teachers for the elementary schools of the State; (2) The State of Virginia cannot afford to maintain properly four "colleges" in addition to those already maintained; (3) The inevitable result of attempts to provide training for high school teachers in the normal schools is the neglect of the primary function for which the normal schools were founded and are maintained, the training of elementary school teachers—a tendency already observable in Virginia; (4) Numerous other institutions already are maintained in, and partly by the State, which are infinitely better equipped and prepared to train high-school teachers; (5) College and university education, properly provided, is very expensive. The proper provisions for laboratories, libraries, and instructional staffs in several State institutions is very wasteful. Virginia already has too many separate colleges. (6) The normal-school-college project has already led to over-ambitious and misleading claims by some of the normal schools, e.g., one of the smallest in the State claiming to offer a collegiate education "equivalent to that required for graduation with the Bachelor's degree from standard colleges of the "A" class and from the average State University."

(g). *Courses Offered:* The normal schools offer three general departments of work: (1) high-school courses; (2) two-year normal courses for the training of elementary-school teachers; (3) four-year "college" courses for the training of high-school teachers. Of these the first and last should be abandoned.

Elementary school teachers cannot be properly trained in two years at the normal school. The course should be extended at once to cover three years of instruction, and, as soon as may be possible, it should be extended to cover the four years now becoming standard.

(h). *Apprentice Teaching:* Adequate provision for teacher training through supervised apprenticeship is a fundamental necessity for any normal school. Such provision is made at the Farmville Normal School through a training school maintained by the institution itself and in the town schools. At the other normal schools apprentice-teaching is provided through cooperation with the city schools. The extent of the facilities available is shown in Table 68.¹

The size of a normal school is always more or less conditioned by the amount of training facilities available. Those at present available for the four normal schools are reasonably adequate. However, the demand for trained teachers is far in excess of the number now trained in the normal schools, and the supply must be increased many fold. That means either an increase in the number of normal schools, or a great increase in the enrolments of the existing normal schools. In the judgment of the survey staff the second alternative should be adopted. The solution suggested is outlined below.

The apprentice training of teachers should involve three steps: (1) closely supervised apprentice-teaching in a training school attached to and administered by the normal school under its own control; (2) further closely supervised teaching in the local public schools in co-operation with the local school authorities; (3) trial teaching under less closely directed supervision in schools of the surrounding territory. It is therefore recommended: (1) that each normal school be provided with a small training school to be conducted under its own auspices; (2)

¹ For the amount of observation and apprentice teaching now afforded, see Table 68.

that the apprentice training of teachers be so organized as to include three successive stages: (i) initial teaching under close supervision in the training school administered by the normal school, (ii) apprentice-teaching closely supervised by the normal school supervisors in the local public schools, and (iii) trial teaching in the public schools in the territory accessible to the normal school.

Space available here does not permit a detailed analysis of plans for the administration of non-local apprentice-teaching. Normal school authorities are perfectly competent to organize such administration. Its advantages are found in the fact that: (1) the teacher training facilities of the normal schools may be extended so as to eliminate the needs of new normal schools; (2) prospective teachers receive training in real situations instead of being limited to the somewhat artificial situations now afforded; (3) the local schools are not overwhelmed with "practice teaching;" (4) the sphere of professional influence of the normal schools is enlarged; (5) some rural schools may receive at least partially trained teachers instead of teachers without training at all; (6) financial co-operation by local school authorities can be made to cover the increased cost of supervision.

(i). *Instructors:* In Tables 69 and 70 are presented figures showing the training and teaching experience of instructors in the four State Normal Schools for Women. As far as may be shown by such data the figures indicate that on the whole the instructional staffs of the normal schools are composed of men and women reasonably well qualified by training and experience.

In Table 71 are presented figures showing the distribution of instructors' salaries. From those figures it appears that: (1) in 1917-18 no instructor received a salary of more than \$2,600; (2) only 17 out of 115 instructors received salaries of more than \$1,400; (3) thirty-eight instructors (about one-third of all) received salaries of less than \$1,000. No normal school can perform its proper functions when one-third of its instructional force receive salaries less than those paid to teachers in good public schools. Increased salary budgets are an immediate need for the normal schools of Virginia.

ii.—COLLEGE DEPARTMENT OF EDUCATION

In addition to the four State Normal Schools for Women, the State makes provision for the training of teachers in the Department of Education of the University of Virginia, in the Department of Normal Training of the College of William and Mary, and in the Department of Agricultural Education of the Virginia Polytechnic Institute.

(1). *University of Virginia:* In 1916-17 there were only forty-seven graduates of the University of Virginia teaching in the public schools of the State. How many thus engaged had attended the University but had not graduated it would be difficult to determine. At present the University makes its greatest contribution to the teaching force of the public schools through its Summer Session.

The need of greater attention to the training of teachers was recognized in 1905 and a Department of Education was established. Through the members of that Department the University has made great contributions to education in the schools of the State. As yet, however, the number of trained teachers prepared is relatively small, more because few students are willing to enter the profession of teaching at prevailing salaries than because of any fault of the University or of its Department of Education.

At present the Department of Education is undergoing reorganization, and for that reason it is best here to suggest the lines of policy which should be followed rather than attempt to analyze its past or present status.

(a). If the State University is to meet its duties for State service it must make proper provision for the training of high-school teachers and for the training of administrative and executive officers in the educational system of the State. It cannot do this unless its doors are open to women either through coeducation, as in most State Universities, or through a coordinate women's college of the University.

(b). The University should limit itself to the training of high-school teachers and administrative officers, leaving the training of elementary-school teachers to the State Normal Schools and the training of vocational teachers to the Polytechnic Institute.

(c). The University cannot train teachers without providing for supervised apprentice teaching either in its own training school or in co-operation with the public schools. Preferably both methods should be employed as suggested for the normal schools above. Plans are already formed.

(d). Through extension courses the Department of Education should provide for the training of high school teachers and school administrators in service.

(2). *William and Mary College*: Since 1906 the College of William and Mary has been almost entirely a State institution, operated by a board appointed by the Governor. It offers 132 State scholarships to young men and women preparing to teach in the public schools of the State, and operates a Department of Normal Training essentially on a normal school basis, a "State Normal School Certificate" being granted on the "Teacher's Diploma" given to the student completing one of the "Teachers' Courses."

In 1916-17 there were 111 graduates of the college teaching in the public schools of the State, and a large number of those who had attended the college for one or more years but did not graduate.

In 1918 the General Assembly passed an act providing for the admission of women so that the College of William and Mary is now the only higher institution financed and controlled by the State (a) providing normal-school training for men, and (b) providing really college work for women.

Here again the Survey Staff finds an institution in a stage of transition forbidding any profitable analysis of past or present conditions.

At the beginning of the next academic year the College of William and Mary will come under the new administration headed by a master school man. Whether or not the State is justified in maintaining or subsidizing this institution should be determined within the course of a few years. It is questionable that the institution is so situated as to permit it to operate satisfactorily as a State supported teacher-training institution.¹

¹ In 1917-18 the city schools of Williamsburg enrolled only 206 white children. Training school facilities in the immediate vicinity of the college are very limited.

However, it is worth while to continue the present experiment until the policies of the new administration shall approve or disapprove themselves to the State. With the College of William and Mary as an institution we are concerned here only with its teacher-training aspects.

(§). *Virginia Polytechnic Institute*: The establishment of the Agricultural Education Department of the Virginia Polytechnic Institute is of such recent date that it has a future rather than a past or present. Its function is clearly defined. It is an education department whose sole function is to provide training for prospective teachers of agriculture and trades. It should be definitely restricted to that function.

iii.—NORMAL TRAINING IN HIGH SCHOOLS

Virginia is one of several States which have attempted to meet the demand for trained teachers by subsidizing normal training departments in certain high schools. Her experience also has been that found in other States—that the results were not satisfactory. For that reason the State Board has modified its policy and now provides that a graduate year of high-school work may be offered for normal training, \$350 being appropriated for each school giving such a course provided a similar sum be appropriated by the local community.

As a matter of fact this provision has practically regulated the normal training in high schools out of existence, and fortunately so. The practice of maintaining such courses in high schools is thoroughly unsound and should be totally abandoned.

iv.—THE TRAINING OF COLORED TEACHERS

The Virginia Normal and Industrial Institute at Petersburg is the only institution maintained by the State which provides training for colored teachers. That institution functions (a) as a central State high school, (b) as an industrial institute, and (c) as a State normal school for colored teachers. Its total enrolment is large (961 in 1917-18) and a large proportion of all its graduates are teaching (876 in 1917), but relatively a very small proportion of its students receive a training equivalent to two years beyond the high school, the standard recently set for graduation from the full professional course.

The administration of this institution is excellent. The teacher-training courses offered are as good as can be offered under the limitations found. The staff of instructors is in general excellent. The State is receiving rich returns from the small amount expended on this institution.

The school suffers from many serious handicaps, especially from (1) the lack of colored high schools in the State, and the consequent poor preparation of many students who enter for normal training; (2) the limitations of the plant and its equipment; (3) inadequate financial support; (4) the lack of adequate facilities for training apprentice teachers. The State should provide for the renovation of the school plant and for more generous financial support at once. Better and more extensive training facilities should be afforded through co-operation with the public colored schools of Petersburg.

In the near future, but after better provision is made at the Virginia Normal and Industrial Institute, a second normal school for colored teachers should be established by the State.

V.—SUMMER SCHOOLS AND SUMMER INSTITUTES

For white teachers Summer Sessions are held at each of the four State normal schools, at the College of William and Mary, and at the University of Virginia. All are open to men and women and offer courses leading (a) to credit in regular normal school, college, or university courses, (b) to credit for the Elementary Professional Certificate, (c) to credit toward the Special Certificate in high school subjects, and (d) to a review of the elementary branches in preparation for State Teachers' Examination for the First Grade and Second Grade Certificates. The review courses constitute no small part of the work done in these Summer Sessions and in reality the State thus maintains in its own higher institutions highly organized "cram" courses for State certificates.

High school graduates who complete three summer courses of six weeks each may secure thus the Elementary "Professional" Certificate, as also may holders of First Grade Certificates, regardless of previous education and training. Thus the State institutions, through the State system of certification, are encouraged, if not forced, to bring their regular sessions into

very unfair competition with their summer sessions. Probably no other one thing has done more to destroy the dignity and value of really professional training for the teachers of Virginia.

Professional study in the Summer Sessions of the State's higher institutions should aim at (a) a continuation of the training of teachers in preparation with the same standards as in the regular annual sessions, and (b) supplementary training for teachers in service. At present, work in the summer sessions tends to become a substitute for rather than a supplement of professional training in the regular sessions.

Defects in the present policy are (1) the time required for recognition is shorter than that in the regular session (eighteen weeks of summer session work receives for the Elementary Professional Certificate the same recognition as thirty-six weeks of work in the regular session); (2) inadequately prepared persons are admitted; (3) no practice work (practice teaching) is provided; (4) "cram" courses to prepare candidates for the State Teachers' Examinations are deliberately organized and fostered.

Those defects may be remedied somewhat: (1) by requiring equal time equivalents for work done in the summer session and in the regular session; (2) by maintaining the same standards for work in the summer session and in the regular session; (3) by maintaining the same standards for entrance to the summer session and the regular session; (4) by eliminating all "review" courses designed to prepare candidates for the State teachers' examination. Changes in certificating standards are considered in the following chapter. Until they are modified the State's higher institutions must be handicapped in their summer session work.

For colored teachers, Summer Sessions are maintained at the Virginia Normal and Industrial Institute, and at Hampton Institute. They are performing excellent service at a time when the State makes very inadequate provision for the training of colored teachers.

In addition to the Summer Sessions considered above, four-week Teachers' Institutes have in the past been held for white teachers and for colored teachers in various parts of the State. During the summer of 1919 no such Institutes are held for

white teachers, but the practice is continued for colored teachers. Those institutes were almost entirely "cramming" schools. They have no justifiable place and should be abolished entirely or radically changed in character.

RECOMMENDATIONS

1. That the control and supervision of all normal schools, and of all teacher training departments of State institutions be centralized in the State Board of Education and that the several Boards at present exercising such control be abolished.

2. That the high school departments of the four State Normal Schools for Women be abolished.

3. That the four State Normal Schools for Women be restricted to the training of elementary-school teachers, and that the law giving them the power to train high-school teachers, provide college courses, and grant college degrees be repealed.

4. That a training school be established at each of the four normal schools for women not now maintaining such a school.

5. That the scope of the apprentice teaching be extended so as to include (a) preliminary teaching under the closest supervision in the normal training school, (b) apprentice-teaching in the local city schools, and (c) trial teaching in non-local schools.

6. That the full normal course for white teachers be extended to three years and at some future date to four years.

7. That the Department of Education at the State University be restricted to the training of high-school teachers, of executive and administrative school officers, and to graduate work in education.

8. That the College of William and Mary be given a period of five years to approve or disapprove itself as an institution entitled to receive State support for the training of teachers.

9. That the Department of Agricultural Education at the Virginia Polytechnic Institute be restricted to the training of teachers of agriculture and industrial education.

10. That normal training departments in high schools be abolished.

11. That better financial provision be made for the Virginia Normal and Industrial Institute.

12. That provision be made to extend the apprentice teaching of colored students through the co-operation of the Virginia Normal and Industrial Institute and the school authorities of Petersburg.

13. That in due time a second normal school for colored teachers be established by the State.

CHAPTER IX

THE CERTIFICATION OF TEACHERS

THE system of certificating teachers is a fundamental factor affecting the character of the instruction provided in any State. Its importance in Virginia deserves a special chapter devoted to (i) an analysis of the present system, (ii) an analysis of the present teaching force with respect to the certificates held, and (iii) some suggestions for modification of the present system.

i.—THE PRESENT SYSTEM OF CERTIFICATION

In accordance with recognized good policy and the best practice, all certificates to teach in Virginia are issued and controlled by the State Department of Education.

Until the past year Virginia probably had the doubtful honor of issuing more kinds of certificates—about thirty-six separate varieties—than any other State. In 1918 that practice was abandoned and the number of different licenses to teach in the public schools of the State reduced to eight. They are described below.

(1). *Collegiate Professional Certificate*: This is the highest grade of certificate provided, and is issued to graduates of a standard four-year college, university, or normal school, whose college work has included fifteen per cent, or nine session hours, devoted to purely professional study and practice teaching. It is a "blanket" certificate qualifying the holder to teach any subject or subjects in any grade of any public school in the State. It is valid for ten years and renewable for a similar period from time to time.

(2). *Collegiate Certificate*: The requirements for this certificate are the same as for the Collegiate Professional Certificate except that there is no requirement for professional study and practice. Its holder is entitled to the same privileges, but this

certificate is valid for five years instead of ten, and renewable for ten if, in the meantime, the holder has met the requirement for professional study and practice teaching.

(3). *Normal Professional Certificate:* This certificate is issued to graduates of the two-year professional course in a standard normal school based on the completion of a standard four-year high school course. It qualifies the holder to teach any grade or grades in the elementary school, and, if a graduate of the two-year course offered at Virginia State normal schools for the special training of high school teachers, the holder may receive a special certificate permitting her to teach any or all subjects in the first two years of the high school course. The Normal Professional Certificate is valid for ten years and renewable for a similar period from time to time.

(4). *Elementary Professional Certificate:* This certificate is issued on (a) the completion, at an approved normal school, of one year of normal school work based on high-school graduation, or (b) the completion of a prescribed Summer School course which may be completed in three summer sessions of six weeks each, or in two summer sessions of twelve weeks each—that course being open to the holders of First Grade Certificates and to graduates of accredited high schools. The holder is authorized to teach in the elementary schools only. The certificate is valid for six years, and is renewable for a similar period from time to time.

(5). *Special Certificate:* A Special Certificate may be issued (a) to persons who have completed two years of standard college work, (b) to applicants who have completed, in an approved summer school, a number of college grade courses required for a particular subject, (c) to applicants passing a satisfactory examination in one or more high school subjects, and (d) to persons presenting evidence of adequate preparation in such special subjects as agriculture, domestic arts, trades, manual training, drawing, music, etc. Special Certificates granted under the first three conditions mentioned above (a,b,c) authorize the holders to teach in high schools the subjects specified on the face of the certificate. Special Certificates for teaching such special subjects as agriculture, etc., (d, above) authorize

the holders to teach in elementary or high school or both, according to the character of their training, and the limitations set in the certificate by the State certificating officer. Such certificates are valid for six years and are renewable for a similar period from time to time.

(6). *First Grade Certificate:* This certificate may be secured in any of three ways: (a) by passing a satisfactory examination in reading, spelling, arithmetic, grammar, geography, United States History, English History, the history of Virginia, civics, physical geography or general science, drawing, algebra, English classics, agriculture, physiology and hygiene, and the theory and practice of teaching, (b) by the completion of the "normal training" courses in certain high schools and other institutions, or (c) by graduation from an accredited high school and the completion of the first twelve weeks work of the prescribed eighteen weeks' Summer School course, provided the work is done in two separate summer sessions of six weeks each. The applicant must in any case be at least nineteen years old and must have had at least seven months successful experience. Applicants under conditions (a) above must have had at least two years of high school training or its equivalent. Under conditions (b) or (c) graduation from an accredited high school is required. This certificate permits the holder to teach in the elementary schools only. It is valid for five years and renewable for a similar period from time to time.

(7). *Second Grade Certificate:* This is the lowest grade of "certificate" issued and may be secured (a) by passing a satisfactory examination in reading, spelling, arithmetic, grammar and composition, United States history, Virginia history, geography, civics, drawing, physiology and hygiene, and teaching methods; (b) by the completion of the "normal training" course in certain high schools and other institutions; (c) by graduation from an accredited high school and the completion of the first six weeks work of the prescribed Summer School Course. The applicant must be at least eighteen years of age, but no other requirements are specified, so that persons with less than a full elementary education may be eligible. This certificate permits the holder to teach in the elementary school only. It is valid for two years and may be renewed once only for a second period of two years.

(8). *Local Permit*: This is not a recognized "certificate" but merely an official authorization permitting a division superintendent on his written request to employ in an emergency a person who does not hold a State teacher's certificate. It may be terminated at the pleasure of the division superintendent, and in no case is it valid for a period lasting longer than the last day of the June following its date of issue.

Further discussion of these certificates is reserved for section iii of this chapter, following an analysis of the present distribution of certificates. In anticipation, however, it may be noted: (a) that three of the licenses to teach call for a general education not higher than the completion of two years of high school; (b) that five of the eight licenses to teach call for no professional training; (c) that most of the licenses to teach are rather general in their application; (d) that practically all licenses except the Second Grade Certificate are valid without real limitations of time. These facts are readily seen from Table 75.

ii.—THE DISTRIBUTION OF CERTIFICATES

In Table 72 are presented figures showing the proportions of teachers in Virginia holding various types of certificates in 1918-19. Those figures show several important facts.

(1). Of all white teachers in the State about twenty-three per cent. (or one in every four or five) are entitled to hold what may be considered at all satisfactory certificates, i.e., certificates representing more than one year of education or professional training above the high school. The great majority of those teachers are employed in the schools of cities or large towns.

(2). Of colored teachers about three per cent. hold certificates of the character suggested above. Of all teachers (white and colored combined) about fifteen per cent. hold certificates of those types.

(3). About one fourth of white teachers and about the same proportion of colored teachers hold Elementary Professional Certificates. A great many of those certificates have been received on the basis of eighteen weeks of Summer School work

without even high school training, since until recently it has been possible and usual for holders of First Grade Certificates without any high school training to secure the Elementary "Professional" Certificate on the basis of Summer School work. In the conversion of old certificates under the new plan all Summer School Professional Certificates for elementary grades were converted into the new "Elementary Professional Certificates." This accounts in great measure for the relatively large number of Elementary "Professional" Certificates—professional in name, but not always indicative of real professional training. This is particularly true of the Elementary Professional Certificates held by the majority of colored teachers.

(4). About thirty per cent. of all white teachers hold First Grade or Second Grade Certificates. It is unfortunate that those euphemistic names were applied to these certificates since they are essentially low grade. Practically all now in existence were granted when no high school training was required to secure either.

(5). About forty-four per cent. of all colored teachers hold First Grade or Second Grade Certificates of the character described above.

(6). Notwithstanding the large number of the low grade (First Grade and Second Grade) certificates, one in every eight or nine white teachers, and one in every four or five colored teachers were teaching in 1918-19 on the basis of Local Permits. Most of those were persons who had taken the examinations for certificates and failed. Needless to say, they are as a whole woefully without qualifications for teaching.

It is obvious that a school system which employs about one-third of its teachers on the basis of minimum grade and emergency licenses, and in which more than one-half of the teachers hold certificates representing at best practically no professional training, is not prepared to do its work properly. It is, in fact, prepared to do great damage to the interests of the children of Virginia. Poor teaching represents not merely a negative loss: it represents a positive damage to the State and her citizens.

It should be clearly understood that the present situation is not the result of the present system of teacher certification

which was introduced only during the past year. Nearly all of the present certificates were issued under the former system and on former standards. Further, in the change from the old to the new system, common justice necessitated provision that no teacher holding an older certificate should suffer by the change. The present situation must be charged, in part, against the older system, but in much larger measure against factors such as inadequate salaries, which no system of certification could offset.

The point cannot be raised that the figures presented in Table 72 represent the situation at its worst in an "off year," when the supply of teachers was very seriously curtailed, and, therefore, that the normal situation is really better than the figures presented would indicate. It is true that the year 1918-19 was an "off year" and that it was very difficult to secure teachers of any sort. It is also true, however, that an analysis of teachers' certificates in 1916-17, or 1917-18 shows a situation even less satisfactory. Thus the figures given in Table 74 show that over one-half of all white teachers and about two-thirds of all colored teachers held certificates not higher than First Grade in 1917-18.¹ As a matter of fact the "scaling up" method employed in the conversion of old certificates into new in 1918-19 gave a much better appearance to the situation in that year than was justified by the real facts of the case.

iii.—SUGGESTIONS FOR MODIFICATION

The adoption of the present plan for teacher certification marked a note-worthy step in advance. Its recent adoption precludes any judgment of its efficacy on the basis of experience. Experience in other States, however, and *a priori*¹ reasoning suggest that the new system involves serious defects which should be remedied:

(1). All certificates tend to be of a "blanket" character. This is particularly true of the Collegiate and Collegiate Professional Certificates which permit the holders to teach not only any high school subject in which he may or may not have

¹ For the situation in 1916-17 see page 140 of the Report of the (Virginia) Superintendent of Public Instruction 1916-17.

been properly trained, but also to teach in the elementary school whether or not he has received any professional training in that field. Instances are not lacking where the holders of such certificates have been called upon to teach subjects which they have never studied and the present system of certification permits such practice. All certificates for high school teachers should show on the face thereof the subject or subjects which the teacher is qualified to teach.

(2). The terminology of present certificates is in many respects thoroughly misleading. So-called "First Grade" certificates are really about sixth grade, and so-called "Second Grade" certificates are really about seventh grade. Further the so-called "Elementary Professional" certificate calls for very little professional work.

(3). The privileges granted to holders of low grade certificates differ so little from the privileges granted to holders of high grade certificates that little incentive is afforded to the former to prepare themselves for higher grade certificates.

(4). The period of validity for low grade certificates differs so little, if at all in some cases, from the period of validity for high grade certificates, that little incentive is offered to their holders to prepare themselves for higher grade certificates.

(5). The privileges and long validity of non-professional certificates discount professional training, and seriously handicap the work of really professional training in the normal schools. For all practical purposes there is little incentive to persons to attend the normal schools for their full course, since the opportunities and rewards of certificates easily obtainable otherwise are practically as great as for two or three years of study and expense at a normal school.

(6). The present certificating system sets altogether too high a premium on preparation at a summer school. As a result of the present plan, very many persons attend summer schools merely for the purpose of taking advantage of the courses there deliberately planned to cram applicants for certificates by examination. No practice teaching is afforded in the summer schools.

(7). The present certificating system is based on the "vertical" plan whereby certificates are graded almost solely with

reference to the kind and amount of training and education received. Better practice calls for a basic classification of certificates on the "horizontal" plan according to the type of teaching to be authorized and a supplementary classification on the "vertical" plan according to the amount and character of the training and education of the holder. According to this system there should be three basic groups of teachers' certificates—(1) those for teaching in the high school; (2) those for teaching in the elementary school; and (3) those for special fields of teaching such as kindergarten, drawing, etc.—and different classes of certificates such as (a) professional or class A; (b) class B; (c) class C. A suggested scheme for such a system in Virginia is outlined in Table 76.

(8). No certifying system can stand by itself. Its efficacy in maintaining standards and encouraging the development of a properly qualified teaching force is conditioned by the maintenance of a proper relation between the certifying system, the institutions for teacher training, the teachers' tenure of office, teachers' salaries, and teachers' pensions. The present certifying plan is not properly related to the work of the normal schools and has no official relation at least to the other factors mentioned.

To overcome the defects of the present system a plan of reorganization is suggested below and summarized in Table 76.

(i). The system should involve basically a classification of certificates according to the classes of teaching to be performed, and secondarily according to the amount and character of the holders' qualifications. Hence three groups of certificates are recommended: (1) for high school teachers, (2) for elementary school teachers; (3) for teachers of special branches.¹ Each of those groups of certificates should involve three classes: (a) the professional or class A certificate, granted on the basis of the entire amount of academic and professional training demanded for fully trained teachers, (b) the class B certificate granted on the basis of somewhat advanced but not complete educational training, (c) the class C certificate, granted on the

¹ The introduction of the six-three-two or the five-three-three organization would involve a four-fold classification. See Chapter XVI.

basis of at least one year of study beyond the high school or its equivalent. All other licenses to teach should receive no "certificate" rank, but be considered merely as permits to teach in an emergency situation after all other grades of teachers have been exhausted. For holders of present certificates a period of time should be granted to reach the standards thus set, or lose present standing. That period may well be not less than five years or more than the period set for the validity of the certificates now held.

(ii). Every certificate issued should bear on its face an indication of the grades or subjects which it authorizes the holder to teach. Each Secondary (high school) Certificate and Special Certificate should always specify the grades and subjects which the holder is qualified to teach.

(iii). No certificate, when originally issued, should be valid for more than three years. After the holder has shown his fitness to teach, it is proper to renew the certificate for a longer period, but in no case should the holder of a low grade certificate be permitted to secure a second renewal without increased qualifications.

(iv). The holders of high grade certificates should receive recognition of superior qualifications through higher salaries, more secure tenure of office, and through provision for retirement pensions. No holder of low grade certificates should be entitled to tenure of office or retirement pensions.

Details of the proposed modifications in the system of certification cannot be discussed here. Essentials are indicated in suggestive form in Table 76.

RECOMMENDATIONS

That the system of teacher certification in Virginia be remodeled so as to correct existing defects, and to provide for the factors suggested in this chapter.

CHAPTER X

SECONDARY EDUCATION

IN 1916, according to the figures of the Federal Bureau of Education, Virginia stood thirty-second among the States of the Union with respect to the proportion of the total population attending high school and thirty-fourth with respect to the proportion of pupils enrolled attending high school. It must be remembered, however, that the large negro population in Virginia renders any such comparison misleading, since the economic and social status of the negroes precludes any very large negro enrolment in the high school even if ample facilities were provided. Among the Southern States Virginia easily stands in the first place with respect to the proportions of the total population or of the school enrolment attending the high school.¹

i.—HIGH SCHOOL ENROLMENTS

In Table 78 are presented figures showing for 1917-18 the number of high schools of various classes in Virginia. Those figures show that there were 665 schools in the State offering some amount and some kind of high school work in 1917-18. Of these only 227 (about one-third) were four-year accredited high schools, 184 (about 28 per cent) were three or four year unaccredited schools, and 194 (about three-tenths) were schools offering less than three years of high school work. There can be little question that too many weak schools are attempting to provide high school education in Virginia.

In Table 80 are presented figures showing for 1918-19 the number of "high schools" of various sizes. Those figures show that 157 schools (nearly three-tenths of all) had a total enrolment each of not more than fifteen pupils. Seventy-three of those schools had each not more than ten pupils.

The evils of the situation are obvious: (1) such schools are always very expensive if proper instruction is provided; (2)

¹ Cf. Table 77 and page 23 of the Report of the (United States) Commission of Education, 1917.

ordinarily proper instruction is not provided; (3) attempts to provide high school instruction in such small schools almost invariably lead to one or both of two evils (a) the unjustifiable use of school funds for a few upper-grade children at the expense of children in the elementary school, (b) encroachment on the teacher's attention to the elementary grade pupils.

Those evils are common in the rural districts of Virginia. How can they be remedied? They may be remedied: (1) by refusing to permit State funds to be used for high-school purposes unless the enrolment appears large enough to warrant its maintenance (e.g. not less than ten pupils in the eighth grade); (2) by requiring higher standards for recognition; (3) by a reorganization of the school system as recommended in Chapter XVI.

In Tables 81-82 are presented figures showing the enrolments in various high-school grades. These two facts are especially noteworthy.

(1) There is a great amount of "dropping out" after the first high school grade, particularly in the non-city schools where only nine per cent of the boys, eleven per cent of the girls, and ten per cent of all pupils are enrolled in the last grade of the high schools.

(2) There is a noteworthy difference between the enrolment of boys and girls, particularly in the cities where in the fourth grade of the high school the number of girls in attendance is about double that of boys.

Both of these phenomena are common throughout the country, but in few cases are they found in such an aggravated form. What are the reasons? It is to be expected, of course, that many pupils will leave school before the completion of the course, and it is but natural, perhaps, that economic and social forces should influence the withdrawal of boys earlier and more heavily than the withdrawal of girls. Other factors, however, are here involved. In the judgment of the survey staff contributing factors are: (a) the lack of a compulsory attendance law which would serve to build up habits and encourage attendance; (b) the existence of numerous anaemic schools which cannot possibly provide proper stimuli for secondary education and sometimes may actually discourage further schooling; (c)

the rigidity of many curricula; (d) the character of the studies offered (see below); (e) poor teaching; (f) an ill-adapted form of school organization.

Corresponding remedies are: (a) the passage of a real compulsory attendance law (see Chapter III); (b) the elimination of weak schools through consolidation (see Chapter XV); (c-d) greater flexibility in the curricula and improvements in the courses of study (see below in this chapter); (e) improved teaching (see Chapters VII-IX and below in this chapter); (f) a reorganization of the school system as recommended in chapter XVI.

ii.—THE TEACHING FORCE

The quality of the teaching force of any high school system is best judged by the character of the education and training which the teachers have received. Accepted minimum standards throughout the country are graduation from an approved four-year college, and proper standards include some amount of professional training either as a part of the under-graduate work or supplementing it.

What is the situation in Virginia?

In Table 83 are presented figures showing that in the school year 1916-17¹ more than one-third of the high-school teachers in the State had received less than two years of college education. Table 85 shows that for 1918-19 only a little more than one quarter of the non-city high-school teachers had received four years of college education and that nearly fifteen per cent. had received no regular education above the high school. There can be no question that as a body, particularly in the non-city districts, high school teachers in Virginia are not well qualified for their work.

The principle difficulties of the present situation are three: (1) numerous small and weak high schools cannot afford to secure the services of well trained teachers; (2) with very few exceptions the salaries paid to high school teachers are insufficient to justify men and women spending four years for a rela-

¹ This year is purposely chosen to avoid the peculiar war-time conditions later.

tively expensive college education; (3) heretofore colleges in the State have failed to provide properly for the professional training of high-school teachers.

It is further to be noted that Virginia has had to depend on out-of-State colleges for over one-fourth of her high-school teachers. In Table 84 are presented figures showing the source of supply for high-school teachers having received at least two two years of college education. That table shows several facts: (1) that State-aided colleges in 1916-17 supplied less than one-sixth of college trained high-school teachers and less than one-tenth of all high-school teachers in the State; (2) that privately supported colleges in Virginia supplied nearly one-half of all college-trained high-school teachers and over one-third of all high-school teachers in the State; (3) that out-of-the-State colleges furnished one-fourth of all college trained high-school teachers, and one-fourth of all high school teachers in 1916-17.

Remedies are to be found in (a) the elimination of high-school work in many small schools, and consolidation; (b) increasing the salaries of high school teachers; (c) better provision for the professional training of high-school teachers in the colleges of the State; (d) modification of the present system of certification (cf. chapter IX).

In Table 63 are presented figures showing for 1918-19 the average annual salaries of high-school teachers in Virginia. Those figures show that in non-city high schools more than one-half of the teachers received an annual salary of less than \$600 and that in city high schools one-tenth of the teachers received less than \$600 per annum. Such salaries offer little inducement to men and women to spend four years and a considerable amount of money in a College education for the purpose of high school teaching.

iii.—SECONDARY-SCHOOL ORGANIZATION

At present plans of the State Board of Education and of the State Department of Education involve a radical reorganization of the secondary school system. According to the new regulations the older triple standards of First-class, Second-class, and Third-class high schools is abandoned and for the future only two classes of high schools are to be standardized;

(a) junior high schools, including grades seven, eight, and nine, and (b) senior high schools, including grades eight, nine, ten and eleven.

The problem of reorganization is considered in some detail in Chapter XVI. Here it may be stated, however, that in the judgment of the survey staff that plan, though aiming at desirable changes in school organization, is fundamentally wrong in two respects: (1) the division of grades is unsound;¹ (2) practical school administration requires a clearer distinction between the junior high school and the senior high school, and, as soon as possible, the elimination of the overlapping. Until the present school organization is converted into the new organization three types of secondary schools must be recognized; (a) the junior high school, (b) the senior high school, and (c) the present four-year high school. The Board's plan provides for (a) and (c) but leaves (b) unprovided for. Ultimately (c) should disappear. The plan proposed by the State Board fosters its perpetuation.

iv.—COURSE OF STUDY

At present writing the plans for reorganization are so incomplete that it is impossible to make any thorough analysis. What the final plans will be or what their effect may be cannot be prophesied.

An analysis of some existing conditions, however, present certain facts which should be recognized in reorganizing the secondary-school course of study.

In 1918-19 there were but five junior high schools in operation in the State (three in the cities of Richmond and Roanoke, and two in non-city districts) so that practically all interpretation of existing conditions must involve primarily the four year high school course.

For high schools organized with four grades the State Board sets the following curriculum standards: Total number of "units" required for graduation 16, distributed as follows—English 4, Mathematics (for non-vocational courses) 2, History (American

¹ See chapter XVI.

² "A unit means a recitation period of at least forty minutes, five times a week, for at least thirty-six weeks, devoted to the completion of an assigned amount of subject matter."

History and Civics) 1, Science (Agriculture with laboratory for rural schools, and Home Economics for girls recommended, provided a teacher of appropriate qualifications be secured) 1, Electives 8.

This program is very flexible and cannot seriously handicap any high school. The only points of doubtful validity are the requirement of four full units (one fourth of the total high-school course) in English, and the requirement of two full units (one-eighth of the total course) in mathematics. In the judgment of the survey staff the requirements for English should not exceed three units (the standard set by the Committee of the National Education Association on the Articulation of High School and College) and the absolute requirements for mathematics should be eliminated.

In Table 86 are presented figures showing the numbers and per cents of pupils engaged in various high school studies in 1918-19 together with figures showing the numbers and proportions of schools in which pupils studied various subjects. Those figures show several important facts.

(1). They show that in 1918-19 three-fourths of all pupils in non-city high schools, three-fifths of all pupils in city high schools and nearly seven-tenths of all high school pupils were studying algebra in 1918-19. To say the least, it is doubtful that such a large proportion of pupils can profitably study that subject. The common requirement of algebra for all pupils in the first year of high school work has no justification.

(2). Nearly two-thirds of all pupils in non-city high schools, nearly one-half of all pupils in city high schools, and nearly three-fifths of all high school pupils were engaged in the study of Latin. For this there is no valid reason.

(3). Only fifteen per cent of all pupils in non-city high-schools were engaged in the study of agriculture.

(4). Only eight per cent of all pupils in non-city high-schools, about twenty per cent of all pupils in city high schools, and thirteen per cent of all high school pupils were engaged in the study of home economics.

(5). All other practical arts or vocational subjects, except some commercial studies, engaged the attention of an insignificant proportion of high school pupils.

(6). Only 6.2 per cent of all high schools provide any commercial studies and only 1.5 per cent of all high schools provide manual arts courses.

All in all present practice in the Virginia high schools is highly academic and makes little provision for the boy or girl whose interest and capacities are adapted to practical arts work. It is not at all improbable that the failure to make proper provision for non-academic studies in the high schools of Virginia explains in part the relatively small number of boys enrolled and the great amount of "dropping out" to which attention was called in an earlier part of this chapter. There is no doubt that the present practice calls for modification in two related respects (a) greater flexibility in the program of the high school and (b) the introduction of more practical arts studies.

RECOMMENDATIONS

1. That the school system be reorganized as recommended in Chapter XVI.

2. That no state aid be granted to high schools having less than ten pupils enrolled in the eighth grade, provided that the State Board of Education be permitted to authorize such aid where consolidation or transportation is impracticable.

3. That the standards of certification for high school teachers be modified as recommended in Chapter IX.

4. That better provision be made for non-academic studies in the secondary schools.

5. That the minimum requirements for graduation from an accredited school be modified so as to prescribe three units of English, one unit of social science, one unit of natural science, and to require the completion of at least three units of related sequential work in some one field in addition to English.

CHAPTER XI

PRACTICAL ARTS EDUCATION

UNTIL very recently traditional influences tended to limit public education in Virginia to those studies in which the intellectual and cultural elements dominated almost, if not quite, to the exclusion of practical arts and vocational education. Not until within the past decade or so was any beginning made to extend the scope of education beyond the intellectual, academic, or cultural, and even at present it cannot be said that more than initial steps have been taken to place practical arts education on its proper footing in the State.

In this chapter an attempt is made to analyze the present status and to outline the proper development of practical arts and vocational education in Virginia.

i.—AGRICULTURAL EDUCATION

In spite of the rapid development of shipping industries on the coast, of commerce and manufacture in the cities, and of mining in the mountain districts, Virginia remains predominantly an agricultural State. Thus Table 1 shows that seventy-two of the one hundred counties of the State are 100 per cent rural and that about ninety counties are more than two-thirds rural. Thus also Table 3 shows that in 1910 about forty-five per cent of all persons engaged in gainful occupations were engaged in the pursuit of agriculture. Further Table 1 shows that in 1917 more than three-fifths of the entire population of the State lived in the open country or in communities of less than 100 population.

It cannot be said that on the whole agriculture in Virginia is carried on efficiently and in accordance with the best modern methods. Rather it must be acknowledged that on the whole lack of the most elementary principles of agriculture is costing the State hundreds of thousand of dollars annually in misdirected labor, in sub-capacity production, and through impoverishment of the soil.

What has public education done in Virginia to reduce that loss and to improve the agricultural production of the State?

Prior to 1918 the State had taken three steps through the public schools to encourage agricultural education: (1) it had provided for the introduction of gardening and agriculture into the program of the fifth, sixth, and seventh elementary grades. (2) it had provided for agriculture in the high-school course of study; (3) it had provided for the establishment of ten "congressional district" agricultural high schools.

(1). *Agriculture in the Elementary Grades.* The State Course of Study for Elementary Schools provides for school gardening in the fifth grade, and for elementary agriculture in the sixth and seventh grades. Excellent recommendations and suggestions are made, but—in nine-tenths of the schools no attention whatever is paid to those recommendations and suggestions. Provision for teaching agriculture in the elementary school is for the most part confined to the printed page of the State Course of Study.¹

(2). *Agriculture in the High Schools.* In 1918-19 about forty-five per cent of the high-schools of Virginia had courses in agriculture enrolling pupils, and 2,337 (15 per cent) of all pupils enrolled in non-city high schools were engaged in its study.² For the most part those courses were extremely superficial, if for no other reason, because not one high school in ten engaged a teacher even moderately trained for the purpose. On the whole the teaching of agriculture in the ordinary high school of Virginia cannot be considered otherwise than a failure as far as practical training for agricultural occupations is concerned.

(3). *High School Departments of Vocational Agriculture:* By an act of the General Assembly in 1918 the provisions of the federal Smith-Hughes Act were accepted and the State Board of Education was designated to act as the State Board of Vocational Education. In accordance with that act provision was made for the training of teachers of agriculture at the Virginia Polytechnic Institute, for the establishment of vocational agriculture in high schools, and for the appointment of a State (Department) supervisor of vocational agriculture. The old

¹ See Table 36.

² See Table 88.

"congressional district" agricultural high schools were converted into local high schools operating departments of vocational agriculture, and such departments were established in eight other high schools. In 1918 eighteen high schools were operating departments of vocational agriculture and enrolled 261 "vocational" pupils.

For agricultural education the ground has barely been broken in Virginia, and much remains to be done if the real needs of the State are to be met. The main lines of development should be: (a) actual carrying out of the recommendations of the State Course of Study for the teaching of the elements of agriculture in grades six and seven, preferably in the junior high school recommended in Chapter XVI; (b) provision for really effective instruction in agriculture in every rural high school; (c) provision for the extended development of intensively vocational departments of agriculture (Smith-Hughes type) in at least one high school in each county of the State; (d) provision for the training of competent teachers of agriculture.

The provision for training in elementary agriculture in grades six and seven (junior high school) is necessary because the great majority of pupils will never progress further. Courses in agriculture in the ordinary rural high schools should provide a basis of general agricultural information available to all pupils in whatever fields their major interests may lie. In the vocational department of agriculture in selected high schools the courses should be designed to develop intensively vocational ability. Without provision for competent teachers agricultural education in any of the phases mentioned cannot become effective.

ii.—DOMESTIC ARTS EDUCATION

Prior to 1918 Virginia had taken three steps for the development of domestic-arts education in the public schools: (1) it had introduced into the Elementary School Course of Study instruction in sewing in the fifth, sixth, and seventh grades, and instruction in cooking in the sixth and seventh grades; (2) it had introduced cooking and sewing into the program of the high schools; (3) it had made provision for courses in "the domestic arts sciences" in the "congressional districts" agricultural high schools previously described.

(1). *Domestic Arts in the Elementary Grades:* The State Course of Study for Elementary Schools makes excellent recommendations for instruction in sewing and cooking in the upper elementary grades. For all but a few schools in the State, however, the project ends in those printed recommendations. Not one white school in ten even pretends to provide the instruction recommended or any other instruction in the domestic arts. Only in colored schools has any real attempt been made to provide such instruction. Due largely to the efforts of the supervising industrial teachers for colored schools the majority of those schools have made serious attempts to provide instruction in domestic arts and have made very commendable progress, in spite of an almost prohibitive lack of necessary equipment and supplies. Domestic arts instruction in white elementary schools for the State as a whole has been a conspicuous failure. In colored elementary schools it has had a most promising beginning.

(2). *Domestic Arts in the Regular High Schools:* According to the high school returns for 1918-19 less than twenty per cent of the high schools of the State had pupils enrolled in domestic arts courses and only 3,259 high school pupils (less than one-fifth of the girls) enrolled were engaged in those courses. In non-city high schools only 11.5 per cent of the girls and in the city schools about 30.0 of the girls were engaged in the study of domestic arts.¹ The record of graduates of the public high schools of Virginia² shows that by far the greatest proportion of girls pass through the high school without any contact with domestic-arts instruction, particularly in non-city districts.

(3). *Special Provisions for Domestic Arts Education:* Prior to the acceptance of the provisions of the Smith-Hughes Act a special intensive form of domestic arts instruction was provided in the "congressional district" agricultural high schools. By the acceptance of the provisions of that act the State made it possible (a) to secure funds for the training and salaries of special domestic-arts teachers; (b) to secure the services of a special supervisor of domestic-arts education; (c) to make better

¹ See Table 86.

² State Board of Education Bulletin, July 1918, vol. I, no. 1, Supplement no. 1.

provision for domestic-arts education in the high schools of the State. The College of William and Mary and the State Normal School at Harrisonburg have been designated institutions for the special training of domestic-arts teachers and a State (Department) supervisor of domestic-arts education (part-time service only) has been appointed.

As with agricultural education it can only be said that a beginning has been made for effective instruction in the domestic arts. Future development must depend on the extent to which are carried out effectively the following projects: (1) the actual carrying out of a real program of domestic-arts education in grades six and seven (preferably in the junior high school¹); (2) better provision for general courses in domestic arts in the regular high school; (3) provision for intensive courses in domestic arts in selected high schools according to the provisions of the Smith-Hughes act; (4) provision for the training of competent teachers.

There can be no justification for the present neglect of domestic arts education in the great majority of public schools in Virginia. It should not be possible for a girl to pass through the school system without some contact with the arts and sciences which must in greater or less degree condition her success as a homemaker.

iii.—COMMERCIAL EDUCATION

Commercial education is of course possible, and probably desirable, only in the larger high schools of the State. At present it is provided in some degree in thirty-three schools of the State and in 1918-19 there were reported 1,555 high-school pupils engaged in the study of commercial branches.² In that year about twelve per cent of all pupils in city high schools were reported engaged in such studies.³

Apparently southern cities in general have not given as much attention to commercial education as have cities in other parts of the country, the median per cent of high school pupils

¹ Cf. Chapter XVI.

² Those figures represent gross enrolments, each pupil being counted as many times as he or she was registered in different commercial subjects. ³ Net enrolments are considerably less.

engaged in commercial studies being about fifteen for southern cities (population 10,000 or over) as compared with a median of thirty-three for cities of the same size in other parts of the country.¹ In Virginia some provision for commercial education should be made in every city and somewhat extensive provision should be made in Alexandria, Charlottesville, Danville, Lynchburg, Newport News, Norfolk, Petersburg, Portsmouth, Richmond and Roanoke. The general need is indicated by the fact that in 1916 (latest available figures) there were eleven private commercial schools in Virginia enrolling 2,430 students.

The past half decade has witnessed great development in the commerce and trade of cities in Virginia. If their needs are to be met, far better provision must be made for commercial education, not only of the clerical type heretofore dominant but enlarged so as to compass the larger fields of merchandizing and store service. The proximity of Alexandria to Washington and the opportunities there afforded for clerical occupations opens up a need for the development of clerical education in the Virginia city. Richmond, Norfolk, Roanoke, Portsmouth, Petersburg, and Newport News possess exceptional opportunities for the development of clerical and commercial courses. Those opportunities must not be lost.

IV.—INDUSTRIAL EDUCATION

In 1910 the number of persons engaged in manufacturing and mechanical pursuits in Virginia was 161,885, or slightly more than one-fifth of all persons engaged in gainful occupations. Since that time war conditions have caused the industries in some parts of the State to develop by leaps and bounds so that in all probability more than 200,000 persons are engaged in industrial occupations.

To what extent the newer industries may persist or the enlarged scope of older industries continue cannot be foretold. It is safe to say, however, that their immediate development and their future maintenance will depend in no small degree on the extent to which the skilled workers needed can be supplied.

How can the skilled labor be provided for the industrial development of Virginia? Three methods are possible: (1) the importation of skilled workers from without the State; (2) the

¹ From an unpublished study by Mr. Cloyd Marvin.

training of skilled workers in and through the industrial concerns; (3) provision for industrial education in the schools of the State.

(1). The importation of skilled workers from without the State must mean that industrial opportunities open to citizens of Virginia will be limited for the most part to the unskilled or at best the semi-skilled occupations. Its necessity must also seriously condition the location of new industrial undertakings. The textile, leather, metal, and other industries of New England were not located there because of the proximity of raw materials. Virginia must develop her own body of skilled workers.

(2). The development of the factory system has practically eliminated the old apprentice system and the industries themselves have ceased to provide proper training for the skilled trades. In Table 87 are presented figures showing the kind of industrial training provided in over four hundred concerns involving twelve groups of trades in Virginia in 1919. Those figures show that only eleven of those concerns provide even what they term "apprenticeship with organized instruction," and that the only trades thus involved are four railroad shops, six ship yards, and one metal trade. The fact is that in all but an insignificant proportion of cases trade training in the industries of Virginia is limited to the incidental and hap-hazard instruction which the "helper" may "pick up" as assistant to an expert or from the occasional criticism of a busy foreman. Further, the highly subdivided processes of modern factory production seldom offer an opportunity for the young worker to learn more than one small part of any trade.

(3). With the exception of a few privately supported institutions for negroes (of which Hampton Institute is the most notable example), the State Normal and Industrial Institute for Negroes at Petersburg, and the Virginia Polytechnic Institute, industrial education is practically unknown in Virginia. The State Course of Study for Elementary schools recommends courses in "manual training in grades five, six, and seven." Needless to say those recommendations are followed in very, very few white schools and would make very little contribution to industrial training if they were followed more extensively.

They limit such instruction to elementary carpentry, raft work, etc. "Manual training" in the high schools of the State is equally ineffective.

From these considerations it appears clear: (a) that the maintenance and development of industrial efficiency in Virginia must be dependent on a supply of skilled workers provided within the State; (b) that the industries themselves cannot be relied on to provide the necessary skilled workers; (c) that the public schools of the State have not heretofore made any effective attempt to meet this problem. They must do so in the future unless Virginia is to lose its present great opportunities.

Obviously the obligation to provide properly for industrial education rests primarily on the city schools of the State. In an attempt to estimate their responsibilities and opportunities a survey was made of industrial conditions in all cities of the State, except Radford, Buena Vista, Williamsburg, Winchester (all small cities and with few industries) and Richmond, the last because an intensive vocational survey was made there recently.¹ Those figures show that in any one city a relatively small number of trades and industries engage a very large proportion of the skilled and semi-skilled workers of that city. The trades involved in the dominant industries of any city should indicate the lines along which industrial education should first be developed in the city schools.

It should be evident that the variety and character of the important industries mentioned in Table 88 preclude the possibility of providing appropriate training in the school buildings. The solution should be found in the inauguration of a program of part-time cooperative education whereby the boy spends a part of his time in the school and a part in the shop under the guidance of skilled workers selected on the basis of their fitness to train pupils in the special trades involved.

This is the plan advocated by the State supervisor of industrial education and has been approved by several industrial managers in the course of this survey. It should be adopted as the plan to be followed for the development of greatly needed industrial education in Virginia.

¹ See note at the close of this chapter.

RECOMMENDATIONS

1. That elementary instruction in agriculture and in domestic arts be provided in the sixth and seventh grades of every rural school, preferably in such consolidated junior high schools as those recommended in Chapter XVI.

2. That in the junior high school every girl be required to take at least one course in domestic arts, wherever and whenever such courses are offered.

3. That at least one high school in each county of the State provide a department of vocational agriculture and a department for specialized instruction in domestic arts, operated on the Smith-Hughes plan.

4. That all larger cities, especially Alexandria, Richmond, Norfolk, Newport News, Portsmouth, Petersburg, Lynchburg and Danville, be encouraged to extend their provisions for commercial and clerical education.

5. That all larger cities be encouraged to develop evening trade courses and part-time cooperative courses in industrial training.

NOTE—During the spring of 1919 Mr. R. V. Long, State Supervisor of Trade and Industrial Education, in co-operation with the Virginia Education Survey, conducted a careful investigation of the industries and trades involving skilled and semi-skilled work in all cities of Virginia except Buena Vista, Radford, Williamsburg, Winchester (small cities having few industries) and Richmond, the last mentioned city being omitted because an intensive vocational survey was made there recently.

The purpose of this industrial survey was to determine for each city the most prominent industries and trades of importance for industrial education and to secure some information concerning the number of skilled and semi-skilled workers involved. Information was secured in part through direct visitation to industrial plants, in part through reports made by employment managers on standard forms, and in part through the co-operation of chambers of commerce and local school officials.

No attempt was made to secure a detailed analysis of the different trades and industries, and the statistics given must be considered as approximate only. It is extremely difficult to determine the proportions of skilled, semi-skilled, and unskilled workers because of the varying standards involved. In all probability the figures given tend to exaggerate the proportion of workers classified as skilled.

It is impossible here to present in full the findings of the industrial survey. They should be published in a special bulletin of the State Department of Education.

CHAPTER XII

SCHOOL HYGIENE AND HEALTH EDUCATION

IN Virginia, as in almost all parts of the country, the health of children has been neglected seriously in the public schools. The results of that neglect have been forced on our attention recently by the fact that more than one-quarter of all young men examined in the war draft were found physically unfit at ages when they should be in the best physical condition.

Any system of education is radically and fundamentally unsound which does not make careful provision for the health of school children, and for the development of physically efficient citizens.

How does Virginia meet this need?

In this chapter an attempt is made to answer that question, with reference to (i) school hygiene and sanitation; (ii) health teaching and physical training in the schools; (iii) medical inspection and health supervision.

i.—SCHOOL HYGIENE AND SANITATION

Proper regard for hygiene and sanitation in school buildings and in the administration of schools means only one thing—safeguarding the health of children in the schools which they are compelled to attend. Conversely, disregard of school hygiene and sanitation can mean only one thing—the actual creation of physical defects by institutions under public control. Thus inadequate or improperly directed lighting not only interferes with the work of the school but actually produces eye strain and actually creates or intensifies defects in vision which permanently injure the child. Thus poor ventilation and improper heating produce both temporary and permanent evils. Thus unsanitary toilets become centres of physical and moral infection, and other unhygienic conditions produce results equally as bad. It should always be remembered that children are grouped together in school rooms for about five hours a day, and that school conditions are far different from ordinary home, shop, or office conditions.

The Survey Staff investigated by personal visits the hygiene and sanitation of about six hundred non-city schools and nearly all city schools. Figures showing conditions in non-city buildings are presented in Tables 91 and 92. Essential facts are summarized below.

(1) *Lighting*: Provision for proper lighting involves at least five factors: (a) adequacy of window space; (b) proper arrangement of windows; (c) proper arrangement of seats with reference to light; (d) provision of window shades to control the lighting; (e) provision for artificial light on dark days.

Section 676 of the Revised Code of Virginia ordains that "all school houses shall provide for the admission of light from the left, or from the left and rear of the pupils, and the total light area must be at least twenty-five per centum of the floor space." Those provisions of the law are ignored in at least four-fifths of the schools of Virginia. More than eighty-eight per cent of the non-city schools visited by the survey staff had less than twenty per cent of window area and fully that proportion of schools did not provide for window lighting from the left and rear only.

As a matter of fact, the requirement of "at least" twenty-five per cent of window area is absurdly high for Southern schools. According to any ordinarily accepted standards a minimum of twenty per cent of window area is amply sufficient for the schools of Virginia.

In Tables 91 and 92 are presented figures showing proportions of buildings receiving various ratings for lighting. Those figures indicate that, as measured by any recognized standard, one-quarter of all non-city white schools and more than one-half of all non-city colored schools have window space so insufficient as to endanger seriously the eyes of the pupils.¹ Of one-room non-city white schools more than two-fifths, and of one-room non-city colored schools more than three-fifths, have dangerously insufficient lighting.¹

Further, windows are so arranged as to violate recognized principles seriously in more than one-third of all non-city white schools and in more than three-fourths of all non-city colored

¹ Ratings D and E—Window area less than fifteen per cent of the floor area.

schools.¹ This is true in nearly three quarters of all one-room white schools and in nine-tenths of all one-room colored schools.²

These defects are increased: (a) by faulty seating arrangements in about one-quarter of all non-city white schools, in more than one-half of all non-city colored schools, in nearly two-fifths of all one-room white schools, and in nearly three-fifths of all one-room colored schools; (b) by the absence of window shades or practically useless window shades in the majority of non-city schools; and (c) by the lack of artificial lights in most such schools.

These conditions are intolerable. Is it strange that nearly one-fifth of all pupils in non-city schools have defective eyesight?³ Careless school building by local school authorities in despite of State regulations is exacting a heavy penalty paid by the children of Virginia.

(2) *Heating and Ventilation*: No argument should be needed to show the importance of provision for the distribution of heat (in cold weather) and for proper ventilation in rooms containing from twenty to forty pupils for five hours in the day. The State law (Section 674 of the Revised Code) ordains that "at least fifteen square feet of floor space and two hundred cubic feet of air space" shall be provided "for each pupil to be accommodated in each study or recitation room," and that no plans shall be approved "unless provision is made therein for assuring at least thirty cubic feet of pure air every minute per pupil, and the facilities for exhausting the foul and vitiated air therein shall be positive and independent of atmospheric changes. All ceilings shall be at least twelve feet in height." These provisions are ignored in fully three-quarters of all non-city schools in Virginia.

In Tables 91 and 92 are presented figures showing the status of heating and ventilation in nearly six hundred non-city schools of Virginia. Those figures indicate that heating arrangements are seriously defective in more than one-quarter of all non-city white schools, in more than three-fifths of all non-city

¹ Ratings D and E—Defects for the most part consisting of cross lighting.

² See Table 93.

colored schools, in forty-five per cent. of all one-room white schools, and in nearly three-fourths of all one-room city colored schools.¹

Those figures also indicate that arrangements for ventilation are either entirely lacking or seriously defective in nearly one-half of all non-city white schools, in more than four-fifths of all non-city colored schools, in more than two-thirds of one-room white schools, and in nearly nine-tenths of all one-room colored schools.²

In small schools (where at present defects are most common) proper heating and ventilation can easily and inexpensively be provided. Nothing but ignorance of the simplest principles of school building and disregard of State regulations can explain the extent of the serious defects found. The least to be expected in small schools is provision for a jacketed stove and adequate inlets and outlets for air. In larger schools a furnace and a complete ventilation system should be provided.

(3). *Water Supply:* In one quarter of all non-city white schools, in more than one-third of all non-city colored schools, in about three-tenths of all one-room white schools, and in more than two-fifths of all one-room colored schools provision for a supply of water for drinking is very unsatisfactory, according to any reasonable standard.³ Provision of water for purposes other than drinking (e.g. washing after use of the toilet or before eating) is made only in the few schools which have their own wells or other sources of water supply.

(4). *Sanitary Toilets:* Few problems connected with the management of school buildings, particularly in the rural districts, present greater difficulties than the management of toilets. Section 676 of the Revised Code ordains that "Every school board shall provide at least two suitable and convenient outhouses or water-closets for each of the school houses under its control, unless the said school houses have suitable, convenient and sanitary water closets erected within same. Said

¹ Ratings D and E—For the most part unjacketed or defective stoves.

² Ratings D and E—D for seriously defective ventilation; E for entire lack of provision for ventilation except by open windows.

³ Ratings D and E—D for unprotected wells, broken pumps, etc.; E for practically no provision for an adequate water supply.



Toilet—West Lexington. Rockbridge County.



Toilet—Salisbury (Colored). Northampton County.



"Girls' Side of the Woods"—Zuni (White). Isle of Wight County.

HOW THE LAW CONCERNING OUTHOUSES IS OBSERVED IN MANY CASES.

Acts of Assembly, 1908, page 266. "Every school board shall provide at least two suitable and convenient outhouses for each of the school houses under its control; * * * said outhouses shall be entirely separated, each from the other, and shall have separate means of access. School boards shall see that said outhouses are kept in a clean and wholesome condition."

outhouses or water-closets shall be entirely separated, each from the other, and shall have separate means of access. School boards shall see that said outhouses or water-closets are kept clean and in wholesome condition." Most schools meet this law to the extent of having two toilets of some sort. In most non-city schools, however, it would require a wide stretch of the imagination to consider them "suitable," "sanitary," or "kept in a clean and wholesome condition."

In Tables 91 and 92 are presented figures showing the character of the toilet facilities and the condition of toilets in non-city schools in Virginia. Those figures indicate that toilet facilities are seriously defective or lacking in nearly one-third of all non-city white schools, in more than one-half of all non-city colored schools, in more than one-third of one-room white schools, and in nearly three-fifths of all one-room colored schools.¹ They also indicate that the condition of toilets is markedly insanitary in nearly one-half of all non-city white schools, in more than one-half of all non-city colored schools, in about forty-five per cent. of one-room white schools, and in nearly three-fifths of all one-room colored schools.

Many other factors of hygiene and sanitation are involved, but cannot be discussed here. The factors considered above give sufficient indication that school hygiene and sanitation are seriously neglected in Virginia. The plain mandates of the State laws, of the regulation of the State Board of Education, and the regulations of the State Board of Health² are ignored in the great majority of schools. With a few modifications those laws and regulations are sufficient to guarantee reasonably satisfactory hygiene and sanitation in the schools of the State, *if they are enforced*.

Failure to ensure the enforcement of those laws and regulations is to be charged in part against the State Department of Education, against division superintendents, against county and district boards, and against the State Board of Health. The fault goes deeper than that, however. Before the situation

¹ Ratings D and E—D representing toilets which are seriously defective but which could be repaired and made sanitary; E representing toilets either lacking or which should be abandoned.

² See Virginia School Laws, pp. 45-49.

can be materially improved several matters of fundamental importance must be attended to: (a) communities must be awakened to a realization of the importance of school hygiene and sanitation; (b) teachers must be trained to understand the problems involved; (c) adequate supervision must be provided in each county; (d) proper provision must be made to meet the needs of health inspection and supervision as suggested in the last part of this chapter; (e) the State Department of Education and the State Board of Health must be given sufficient assistance to attend to the duties placed upon them.

ii.—HEALTH INSTRUCTION AND PHYSICAL TRAINING

By section 702 of the Revised Code of Virginia the teaching of physiology and hygiene is required in every free public school of the State, and each teacher is required to devote not less than thirty minutes per month to instruction dealing with the prevention of accidents. These are the only legal provisions for health instructions and training in the public schools.

In the State Course of Study for Elementary Schools excellent provision is made for the health instruction in each grade. Unfortunately, however, actual instruction in that field is limited to the most perfunctory and unskilled teaching in the majority of non-city schools. In one-teacher and two-teacher schools, particularly, the crowded program and the quality of teachers employed make health instruction relatively ineffective.¹

Physical education through physical exercise is not even mentioned in the State Course of Study for Elementary Schools. Here and there in a few schools or in a few districts energetic and capable teachers and superintendents have organized a program of physical exercise. Those instances, however, are few and far between. For the non-city districts of the State as a whole physical training through exercise is almost totally neglected.

The old high school course of study made no mention of physical training. The new high-school course has recognized its importance and makes definite, though somewhat limited,

See Chapter V.

provision. At present few high schools, even in the cities of the State, make anything like adequate provision for the physical training of their pupils.

Nothing short of one full period (at least thirty minutes in the clear) of physical exercise per school day for each pupil can be considered at all satisfactory. Preferably such exercise should be in the open air and in Virginia, fortunately, that is possible for the parger part of the school year. This means that schools should have sufficient ground space (cf. chapter XVII and Table 109). Larger schools should supplement this by provision for gymnasiums.

In smaller schools provision for physical training may be made through supervised play. In larger schools competent instructors should be provided to direct a comprehensive program of physical training.

iii.—MEDICAL INSPECTION AND SUPERVISION

During the school year 1914-15 physicians and officials of the State Board of Health conducted a medical inspection of the school children in seven counties and two cities of Virginia. The results of that inspection are shown in Table 93. From the figures there presented it can be seen that a large proportion of school children in Virginia suffer from one or more physical defects which lead to excessive absence from school, poor work, failure, and retardation in the school, and serious handicaps throughout life. A few of the more important facts disclosed are summarized below.

(1). About twenty-three per cent of all non-city school children suffer from defective vision, seriously interfering with their school work. All such defects call for medical attention and most are easily remediable. As pointed out in an earlier part of this chapter through bad provision for lighting many schools actually create or at least intensify such defects.¹

(2). More than three-fifths of all the school children examined had defective teeth, easily remediable by the dentist's care.

¹ Provisions of Section 724 of the Revised Code for the care of pupils' vision and hearing have been met by the Superintendent of Public Instruction, but have been neglected by the majority of teachers.

(3). From one-half to two-thirds of all school children in Virginia suffer serious throat conditions, one-half of the non-city children and nearly two-thirds of city children suffering from enlarged or diseased tonsils, and more than one-third of non-city children and two-fifths of city children suffering from adenoid growths.

(4). A great majority of the school children examined had previously suffered from one or more of the commoner contagious diseases, and had lost varying amounts of schooling thereby. In this connection it may be noted that Section 1529 of the Code provides for the compulsory vaccination of school pupils, but permits suspension of the law in whole or in part by the school board of any city or county. Division superintendents report that in 1918-19 this vaccination law is "enforced" in 24 counties "neglected" in 49 counties, and "suspended" in 16 counties.

Unfortunately financial limitations prevented the Education Commission from including in its survey an investigation of the physical condition of school children in 1918-19. Since the time of the medical inspection referred to above many cities and a few counties have made considerable progress in the medical inspection and supervision of school children. For the State as a whole, however, and particularly in the counties, the situation apparently remains much as it was when the statistics in Table 93 were compiled.

During the years 1910 to 1914 an extensive campaign against hookworm diseases was carried on in Virginia in cooperation with the Rockefeller Hookworm Commission. Approximately one hundred thousand children were examined. In Table 94 are presented figures showing for fifty counties the percentages of children of school age examined having hookworm infection. Those figures indicate the facts and suggest the comments given below.

(1). In ten counties of the State, at the time of the examination, one or two children in every ten of school age were infected with hookworm; in ten counties two or three in every ten children were thus infected; in nine counties three or four children in every ten were thus infected; in seven counties nearly one-

half of the children were thus infected; in two counties five or six in every ten children were thus infected; and in two counties two-thirds of the children were thus infected.

(2). These children are "sickly" and require no small degree of medical attention. In most cases, however, parents depend on useless or dangerous "medicines." Five dollars a year would be a low estimate for the average amount expended for such "medicine."

(3). Children infected with hookworm are unable to learn as fast as healthy children. They are frequently mistaken by teachers for dull children, or for children mentally defective. It is probable that children suffering from hookworm disease usually take twice as long to progress through a grade as healthy pupils, and for the most part progress about half as far in the school before their schooling ends. Their education adds greatly to school costs, they lose no small part of the education provided, and their backwardness interferes with the progress of any class in which they are placed.

(4). With a competent physician the diagnosis of hookworm disease is simple, its treatment easy, and cure almost certain. The conditions previously found and, to a considerable extent, still persisting, admit of relatively easy correction with proper medical inspection and supervision.

The importance of provision for medical inspection and supervision in Virginia was recognized in part by the passage of the West Law in 1918. That law (a) authorizes the appropriation of county funds for the inspection of school children and the employment of school physicians and nurses, and (b) requires each normal school of the State to provide a course in preventive medicine and the medical inspection of school children, which course must be successfully completed by every normal school student as a prerequisite for graduation.

What the effect of this law may be cannot, of course, be prophesied. It is very doubtful, however, that any permissive law can meet the imperative needs of the situation. In all probability the needs of the situation will not be met in counties where it is most serious unless the law is made mandatory instead of permissive and until at least one school nurse is required for every county and city in the State.

An ideal plan for medical inspection and supervision would require for each county or large city (1) at least one full-time health officer (physician) in charge of health work in the schools, (2) as many school nurses as would be necessary so that each school could be visited at least once a month,¹ (3) at least one school dentist. How nearly the State of Virginia can approach that program at present depends on the readiness of her people to safeguard with reasonable care their greatest asset—the health of their children. From an economic viewpoint the State could make no better investment, even with respect to present costs.

Until the State is ready to adopt such a plan it must make the best use it can of available resources and possible laws. The minimum to be considered should be such provision as would permit the medical inspection of school children at least once a year by competent persons. It should be remembered, however, that mere inspection can produce only information and advice. Medical inspection without medical supervision and provision for medical care must always be like a machine without an engine for power.

RECOMMENDATIONS

1. That provision be made for hygienic and sanitary school houses as recommended in Chapter XVII.

2. That provision be made for the whole time services of a competent person, who, working under the joint auspices of the Department of Education and the State Department of Health, shall have general supervision of school hygiene and sanitation, physical education, and medical inspection and supervision in the public schools of the State.

3. That the present (West) law be so amended as to require that each superintendency division (county or city) employ the full-time services of at least one school nurse or school physician.

4. That the Board of Education require provision for physical training in the program of every school in the State.

¹ At present six counties in the State provide at least one school nurse. Norfolk county provides three.

CHAPTER XIII

NEGRO EDUCATION IN VIRGINIA

NEGROES constitute nearly one-third of the total population in Virginia. According to the latest federal census there were 671,076 negroes in the State in 1910. Likewise the colored school population is approximately one-third of the total school population, there being 222,258 colored children of school age at the time of the latest school census in 1915.

The greater part of the colored population is in the Southside and Tidewater section of the State. West of the Blue Ridge Mountains no county has a colored population as large as twenty-five per cent of its total population, and few of the western counties have a colored population as large as ten per cent of their total population. Further, in the western counties of the State the colored population is almost entirely confined to the cities, towns, and mining centers, whereas in the East it is predominantly rural. It averages seventy-six per cent rural for the State, and it is noteworthy that negroes constitute one-third of all persons engaged in agricultural pursuits. As farmers, renting and owning land, they control 2,233,833 acres: as farm laborers they cultivate much more.

Economic Aspect of Negro Education: The education of a group composing nearly one-third of the total population of the state necessarily has an important economic bearing. It is a well accepted principle that the wealth of any country or community is more dependent upon the character, skill and general intelligence of its workers than upon mere natural advantages. The cities are realizing that the negro is the backbone of the labor supply in many industries which are vital to their prosperity and growth, and they are showing increasing concern over the housing, recreation and school facilities of the colored people, for good wages alone will not make a contented and efficient working population. Industrial plants that have given their colored workers a better chance have found themselves repaid in quality of output, in loyalty and steadiness of

their employees. Mr. Homer L. Ferguson, President of the Newport News Shipbuilding and Dry Dock Company, and of the United States Chamber of Commerce in an address before the Richmond Chamber of Commerce, June 25th, 1919, urged that Virginia be careful to encourage its Negro labor, which in his judgment represented a great asset to the state. Mr Ferguson is qualified to speak on this subject, for his company employs over 4,000 Negroes.

The Northern cities are now bidding for Negro labor, and the superior school advantages they offer have something to do with the general migration. Better school facilities would go a long way in encouraging the colored people to remain in the South. The Report of the United States Department of Labor on Negro Migration in 1916-17 shows that fewer Negroes left communities in the South where good schools were provided for their children.

If this is an important matter for the cities, it is much more so for the counties where three-fourths of the Negroes live and where they constitute one-third of all persons engaged in agricultural pursuits, having charge of more than two million acres of land. No one familiar with the state needs to be told that this land is for the most part cultivated in a very poor and inefficient fashion. Methods of tradition prevail and the fertility of the soil, the greatest natural resource of the state, has suffered waste. No movement would tend more to the prosperity and economic well-being of the State than the increase of intelligence and skill on the part of this group. The prosperity of the colored farmers means the prosperity of the white farmers as well, the prosperity of merchants and manufacturers, bankers and business men of the entire state. It means increasing the taxable wealth and building up the very foundation for good schools, good roads, churches, and all community undertakings for the general welfare of the people.

Health: The death rate among Negroes is almost twice as high as that among whites and it is clear that little headway can be made in bringing under control the preventable diseases such as tuberculosis, typhoid fever, malaria and hookworm disease until the colored people can be brought to cooperate with all the agencies of the state for the promotion of public

health. The work of the supervising industrial teachers and the Negro Organization Society gives evidence that they are willing to help to the extent of their knowledge. A colored man sick with a communicable disease is a source of danger to the entire community. Disease draws no color line.

The colored third of the population of Virginia must be trained so as to become economically productive; to become healthy enough to eliminate present unhygienic conditions and safeguard themselves and their white neighbors from disease; to become morally and socially sound, and to supply their own trained leaders in the ministry, in teaching, and other fields on which their racial integrity and their living depend.

In this chapter an attempt is made to analyze the present status of Negro education in Virginia and to suggest certain measures for its administration.

THE PRESENT STATUS OF NEGRO EDUCATION IN VIRGINIA

Various factors involved in an analysis of the present status of Negro education in Virginia have been considered in previous chapters of this report. Important facts may be summarized here.

(a). *Provision for Schools:* Of all colored pupils in the non-city schools of Virginia about eighty-five per cent are enrolled in one-teacher and two-teacher schools. Even in counties where the colored population is greatest by far the largest proportion of colored children have no educational opportunities other than those offered by the one-teacher school. In non-city districts only 13,567 colored pupils were enrolled in schools having more than two teachers each in 1916-17, while 95,052 colored pupils were enrolled in one-teacher and two-teacher schools. Outside of the cities there are very few colored schools employing more than two teachers.

Even for the limited type of education provided, the schools are generally inadequate. The practice of employing one teacher for two schools still survives in a few districts. In at least two counties a member of the survey staff found this to be the case with reference to a group of Negro schools. In one case he was told that the practice obtained of running a Negro school every other year or every once in a while. This is not

typical, but it represents the extreme of indifference which obtains to a certain extent in nearly every county with a large colored population. Illiteracy flourishes in such communities and holds down the average of the entire state. The deficiencies of the Negro public schools cannot be excused on the ground that private schools are maintained by church or philanthropic agencies.

High Schools: Few high schools are provided for colored children. In the entire state there are only three colored high schools accredited for four grades of standard work—the Armstrong High School, Richmond, the Booker T. Washington High School of Norfolk city, and the Mt. Hermon High School of Norfolk county.¹ Three-year high schools for colored pupils are maintained in Lynchburg, Petersburg, and Danville. Portsmouth will house its high school next year in a new building costing \$80,000. Petersburg is also building a new colored school costing \$100,000. This will be shared by the high school and a grammar school. A few other cities have made some slight provision for the high school education of colored children, but in most of them high school education of colored children is almost entirely lacking, or negligible in the opportunities supplied.

According to the High School Report of the State Department of Education for 1917-18, only two colored high schools outside of the cities offered as many as twelve units (three grades) of work of standard value, and those two schools—the Caroline County Training School, and the Mt. Hermon High School in Norfolk county, enrolled 91 pupils in the high school grades. According to the same report the colored high schools of Richmond, Norfolk and Lynchburg enrolled 974 pupils.

County Training Schools: With the single exception of the Mt. Hermon High School in Norfolk county, no high school work for colored children is done in any of the non-city districts of the state except in the County Training Schools, encouraged and in part supported by the Slater (non-public) fund and by funds supplied by the General Education Board.

¹ The Mount Hermon High School became a part of the Portsmouth City school system during the session of 1918-19.

Eighteen of these schools have now been established and their development is one of the most promising movements in Negro education. The aim is to establish a good central rural school, sometimes by consolidation, offering thorough work in the elementary grades, and from two to four years of high school work, including the industries having to do with the country home and farm. A simple course in teacher training is offered in the highest grade. A typical plant consists of a class-room building, a work shop, a teachers' home, and perhaps a small dormitory for boarding students. Most of the schools represent only a simple and crude beginning and will require several years to work up to the high school grades.

It is not to be expected that at present the ratio of pupils in high school grades should be the same for the white and colored population, for the time a pupil can spend in school depends on the economic and social conditions of the home from which he comes, as well as upon the general desire for knowledge on the part of the student, and colored people are not as favorably situated as white people in this respect. Most of the rural high schools for white children have been established within the last fifteen years, and the time is now ripe to do more for the high school training of colored children. One hundred thirty-three pupils enrolled in high schools¹ in the counties out of a school population of 182,969 colored children is a mere beginning.

The principle of racial integrity is fundamental in the minds of both races. It must be recognized that if the Negro race is to be sufficient to itself, it must produce its own teachers and leaders. The colored people in the country cannot have a trained ministry or trained leaders in education and industry with the limited educational facilities now afforded. The higher institutions cannot perform their proper functions unless secondary schools are provided in the state as a connecting link between them and the elementary schools.

(b). *The School Term.*² In 1917-18 non-city schools for colored children were open on the average of six months, while white schools of the same class were open on the average more than seven months. In fifty-five counties the average length of the term for colored schools was six months or less;

¹ Including county training schools.

² See Chapter II and Tables VI-VIII.

in ten counties the county wide averages were five months or less; in one county it was four months; and in one county it was 3.2 months. In nearly one-third of 230 non-city colored schools, individually examined, the school term was five months or less in 1917-18. Particularly significant is the fact that the shortest terms for colored schools are commonly found in counties and districts having the largest colored population.

(c). *Enrolment and Attendance*:¹ Less than two-thirds of the colored children "of school age" are enrolled in school. Three-quarters of the white children "of school age" are enrolled. The status of colored school enrolment is now approximately what it was in 1890 as measured by the ratio of enrolment to total colored population or to colored school population.²

The per cent of colored school population in average daily attendance at present is about 37: for whites it is about 52. In sixty counties of the state the per cent of colored school population in average daily attendance is 35 or less, nine counties having a record of twenty per cent or less. For white children, three counties have a record of 35 per cent or less (none under 31 per cent).³

For colored pupils enrolled the per cent in average daily attendance is about 63: for white pupils enrolled, the per cent in average daily attendance is about 67 or 68. On every day that the schools are open more than one-third of the colored pupils are absent and, as a result, colored pupils lose on the average more than one-third of the schooling provided. In sixteen counties of the state (for the most part those with the largest colored population) colored pupils, through poor attendance, lose, on the average, more than one-half of the meagre education provided. One fourth of 218 non-city colored schools individually examined have a record of less than fifty per cent for average daily attendance.

(d). *Retardation and Elimination*:⁴ The story of public education for Negroes in Virginia is told by the facts presented in Chapter IV, and the figures presented in Tables 15ff. Briefly summarized they are as follows:

¹ See Chapter III and Tables 11-14.

² See Table 12.

³ See Table 13.

⁴ See Chapter IV and Tables 15 ff.

1. In non-city schools colored pupils in each grade are on the average two years older than the Virginia standard ages for those grades, and a year to a year and one-half older than white children of the same grades.

2. In non-city schools eighty out of every hundred colored pupils are older than they should be for the grades in which they are located. In city schools fifty-five out of every hundred colored pupils are thus over-age for their grades.

3. In non-city schools seventy-five or seventy-six out of each hundred colored pupils have spent in school one or more years in excess of the time they should have spent there in order to reach the grades in which they are found. In cities the corresponding figures are fifty-eight out of every hundred colored pupils.

4. Eighty-six per cent of colored pupils in non-city schools are not older than fourteen. Ninety-one per cent of colored pupils in city schools are not older than fourteen.

5. In non-city schools 99.5 per cent of all colored pupils are found in the elementary school: fifty-seven per cent are found in the "primer," first, and second grades.

6. The age-grade distribution of colored pupils in non-city schools shows a situation which cannot be described otherwise than as chaotic. In most schools grading is almost totally lacking.

7. Colored pupils begin to leave school in large numbers after four *years* (not four *grades*) of school attendance. Certainly not more than fifty per cent attend school for more than seven *years* (not seven *grades*).

8. Colored pupils leave school in large numbers by the fifth grade. By the seventh grade four-fifths of all colored pupils have left non-city schools and more than three-fifths have left the city schools.

(e). *The Teaching Force*¹: As a body, the Negro teachers of Virginia manifest an earnestness of purpose, a sense of social responsibility, and an eagerness to perform their duties properly, which leave little to be desired. They are conscientious

¹ See Chapter VII.

and self-sacrificing workers, handicapped, however, by inadequate education and training, by inadequate equipment, and by inadequate financial resources, to such an extent that teaching in all but a few colored schools is at a very low level.

1. In most parts of the state the number of colored teachers employed is very inadequate. In more than one-half of the state the county wide averages ranged from one teacher employed for every seventy colored children of school age to one teacher for every 196 colored children of school age. In seventeen counties the record was one colored teacher employed for 100 to 196 colored pupils of school age. Further, in more than one-half of the state the county wide averages ranged from forty-one to one hundred colored pupils enrolled for each teacher employed. Finally, in sixteen counties the county wide averages ranged from thirty-one to sixty-five colored pupils in average daily attendance for each colored teacher employed. Many individual schools have totally impossible records, the extreme example found by the Survey Staff being a one-teacher school having 110 pupils enrolled and eighty-five pupils present on the day of visit in a room seventeen and one-half feet by twenty-three feet.

2. Colored teachers as a body have inadequate education and training. In non-city schools more than one-third have never received an education of two grades of high school work or less, one-half have never received an education of more than three grades of high school work, and more than three-fourths have never received an education above that equivalent to a four-year high school course. Only one-fifth have ever received an education in training equivalent to one or more years of college or normal school.

3. The inadequate qualifications of colored teachers are also shown by the certificates which they hold. Of 923 colored teachers whose certificates were examined, more than one-fifth held local permits, more than one-quarter Second Grade Certificates, nearly one-fifth First Grade Certificates—in all two-thirds holding certificates indicating very unsatisfactory qualifications,—while only three per cent held "professional" certificates.

Enrollment, 110—Pupils Present, 85—Size of Room, 17x20.



Ryland (Colored). Greenville County.

4. In 1917-18 the average monthly pay of colored teachers was about \$30 and the average annual pay about \$183. In more than one-half of the state the county wide averages for the annual pay of colored teachers was less than \$176; in more than one-fourth of the state it was less than \$151; in six counties it was less than \$126; and in one county it was less than \$100. Salaries have been increased during the past year. The increase in pay, however, is far from equaling the increase in the cost of living, even with the most humble standards. Neither has the pay of colored teachers increased to meet the competition of other occupations. Unskilled labor receives better pay than colored teachers in Virginia.

5. With its present colored population Virginia needs about four thousand colored teachers. About three thousand are now employed, and of that number not one-quarter are reasonably well prepared for their duties.

Facilities for the training of colored teachers in Virginia are woefully inadequate. The supply of teachers still depends chiefly on institutions not maintained by public funds. Three hundred and twenty-five graduates of Hampton Institute were teaching in the public schools of Virginia in 1917-18. The good influence of that institution on colored schools in Virginia can scarcely be over-estimated. Other schools, endowed by private funds, have contributed no small share to the teaching force of colored schools.

County Training Schools are beginning to send out teachers to rural colored schools and promise good assistance in the present emergency. They cannot, however, meet the needs of professional training, and should not set themselves up as little normal schools.

The one public agency of the state for the training of colored teachers is the Virginia Normal and Industrial Institute at Petersburg. Its total number of graduates up to 1917 was 1,461 of whom 876 were teachers, 153 were housekeepers, 31 were continuing their education in other institutions, 290 were engaged in miscellaneous occupations, and 111 were deceased.

At present this school is overcrowded and every year is obliged to turn away students seeking admission. The plant is too small and sadly in need of repairs and renovation. Its financial support is insufficient. But, hampered by over-

crowding, by meagre equipment and support, this institution is performing an admirable work, and in service is richly repaying the state for every dollar invested.

A much larger supply of trained colored teachers is imperative. The state should increase generously its support of the Petersburg Normal School, both to increase its output and to raise its standard of training Negro teachers. When that has been done a second colored normal school must be established.

(f). *Buildings and Equipment*:¹ The character of the school buildings and of the school equipment provided for colored children is too well known to the people of Virginia to require detailed description. Well planned, well built, and even fairly well equipped buildings are very much the exception—many cities even providing wretched buildings for their colored children. The figures in Tables 104-112 make sufficiently clear the fact that colored school buildings in general are poorly built, wretchedly equipped and in many cases impossibly overcrowded.

In spite of present conditions, however, there is distinct promise of early improvement. As never before districts are interested in the improvement of colored school buildings and equipment, the colored people are laboring hard with their own resources, the State Department is providing assistance, and private endowments are stimulating local and state endeavor.

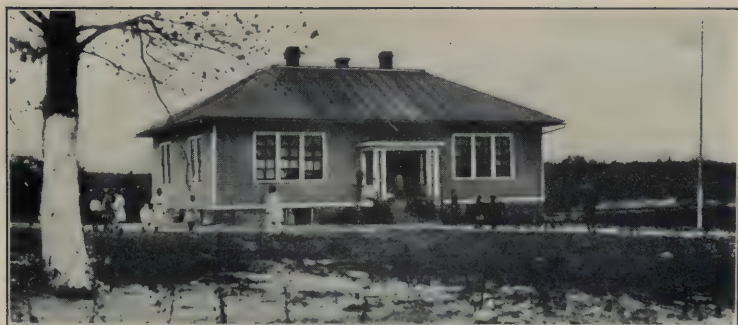
In particular the Rosenwald² fund is arousing activity in the erection of good buildings for colored children, providing, under certain conditions of cooperation by the colored people and by the state, \$400 to complete a one-teacher building, and \$500 for building a school house of more than one room. Already forty-six buildings have been erected at a total cost of \$80,000. Of this amount the Rosenwald fund gave \$22,000, and the colored people raised \$25,000.

(g). *Supervision*:³ As indicated in Chapter XIV, supervision, excellent in character but limited in extent and scope, has

¹ See Chapter XVII.

² To July 30, 1919, Mr. Julius Rosenwald has assisted in building 751 Negro rural schools in eleven Southern States. The total cost was \$1,171,000, of which Mr. Rosenwald gave \$285,000, and the colored people themselves raised \$443,000. Mr. Rosenwald's gifts have been made through Tuskegee Institute, Alabama. Virginia ranks fifth among the States in number of schools built with aid from this fund.

³ See Chapter XIV.



(A) Hickory Hill. Chesterfield County.



(B) Whitestone. Lancaster County.



(C) Gravel Hill. Amelia County.

TYPICAL COLORED SCHOOL BUILDINGS.

- A. A splendid type of four-room rural school.
- B. A typical county training school, colored patrons contributing over half of the cost.
- C. The usual type of Negro rural school.

been provided for rural colored schools of the state. Virginia has been a pioneer in cooperating with private foundations for the supervision of the colored rural schools. The first supervising industrial teacher under the Jeanes fund¹ was employed in Henrico county in 1908-09, and in 1910, a State Agent of Negro Rural Schools was first employed. All the Southern States with one exception have since that time employed such agents through the assistance of the General Education Board.

Excellent pioneer work has been done in 57 counties. A more practical course of study has resulted from the industries that have been introduced, the people in the country have been organized for self help and public sentiment has been improved.

It remains to reorganize supervision of colored schools by reducing the area of each supervisor's district and extending the scope of her work so as to provide sadly needed supervision of primary teaching as well as of industrial work. Such a procedure would reduce the expense and difficulty of travel as well as improve the work of rural colored schools in general. Lack of provision for the means and expense of travel constitute one of the greatest difficulties to be overcome by colored supervision at present. It would be true economy for the counties to furnish sufficient traveling allowances to enable supervisors to provide their own teams or other means of travel.

(h). *Finance:*² As all other educational problems, the problems of Negro education in Virginia sooner or later resolve into the fundamental question of money. The general problems of school finance in Virginia are considered in Chapter XXI. One point may justify further consideration here.

The pay of teachers must always be the primary financial problem in school administration. It has been shown that the pay of colored teachers is so low that there is no possibility of securing competent teachers unless and until the teachers' pay is materially increased.

¹ The Jeanes and Slater funds for Negro education are administered by Dr. James H. Dillard, Charlottesville, Virginia. The Jeanes fund is used to assist nearly 300 counties in the Southern States in employing supervising industrial teachers. The Slater fund is used chiefly to aid secondary schools both public and private. It is now assisting about 100 County Training Schools in the Southern States.

² See Chapter XXI.

The state appropriates annually to county school boards an amount of money determined by the total number of children (white and colored together) of school age in the county. That money is apportioned to districts by the county boards and to schools in each district by the district trustees according to their judgment. The result is that money is given to the county by the state in amounts determined by the number of children, white and colored, (the same amount for each white and each colored child) but distributed without reference to the relative proportion of white and colored children needing education.

In Table 95 are presented figures showing the ratio of the amount expended for colored teachers' pay and the amount received per colored child from state funds in different counties and cities. Those figures show that:

(1). In the group of thirty-two counties having each from fifty to seventy-five per cent of their total population colored, not a single county spends as much for the pay of colored teachers as it gets from the state funds by reason of the presence of colored children in the county. For that group of counties as a whole, the total expenditure for the pay of colored teachers was less than two-thirds of the total amount received from state funds by reason of the presence of colored children.

(2). In the group of thirty-one counties having each from twenty-five to fifty per cent of its population colored, eight only expend for the pay of colored children as much as they get from the state by reason of the presence of colored children. For that group of counties as a whole the total expenditure for the pay of colored teachers was a little more than three-quarters of the total amount received from state funds by reason of the presence of colored children.

(3). Of sixty-three counties of the state having each a proportion of Negro population in excess of twenty-five per cent and together containing seventy-one per cent of all colored children in the state, only eight drew on their local tax funds for the principal cost of Negro education, namely, the pay of colored teachers. The other fifty-five of those counties drew money from state funds by reason of the presence of colored children and devoted a part of it to the white schools.

Such conditions are thoroughly unjust and should not be tolerated.

Future Outlook: There is no doubt but that a brighter day is at hand for Negro education in Virginia. The good work of Jeanes industrial teachers in making the country schools more practical in their work and showing what may be done under wise direction has created a widespread demand for better trained teachers. The attendance of more than one-third of the teachers at summer schools is an evidence of their earnest spirit and desire to prepare themselves for greater service. The self-help of the colored people in raising through their school leagues \$50,000 a year for various improvements; and particularly the ferment over the building of school houses, is being met with encouragement and help on the part of local school officials.

Progress in Other States: In providing better Negro schools, Virginia will have the company of other progressive states. Louisiana has lately increased its school revenues very considerably and the State Superintendent estimates that a quarter of a million dollars more money will be spent next session on the Negro schools. A supply of teachers was not available to use so large an increase, and in order to meet the emergency, summer schools of twelve weeks have been organized in various parishes, enrolling over 1,000 students who are working for a teacher's certificate. Beauregard Parish in that state has recently fixed a minimum salary for colored teachers of \$60 per month.

The South Carolina legislature recently appropriated \$73,000 to the colored State Agricultural College at Orangeburg. North Carolina is spending over \$100,000 in new building and equipment for colored State Normal Schools. High schools have been given encouragement in both of these states.

RECOMMENDATIONS

1. That in any county or city of the state the amount spent for the salaries of colored teachers be not less than the amount received from the state for instructional purposes by reason of the presence, enrolment, or attendance of colored children in that county or city.

2. That the length of the school term be extended. Cf. Chapter II.

3. That the pay of teachers be increased. Cf. Chapter VII.

4. That more and better school buildings be provided. Cf. Chapter XVII.

5. That the work of the supervising industrial teachers in making a more practical course of study for the rural schools be strengthened and extended.

6. That the number of supervisors be increased so that class-room instruction, especially in the primary grades, may be supervised, as well as industrial work, and that the state give financial encouragement to counties for adequate supervision.

7. That the work of the County Training Schools be strengthened and that state aid be provided.

8. That increased facilities be provided for high schools both in cities and counties with state aid.

9. That the Virginia Normal and Industrial Institute be given more adequate financial support for the training of teachers.

10. That, in due time and after adequate provision has been made for the Virginia Normal and Industrial Institute, a second colored normal school be established.

CHAPTER XIV

THE SUPERVISION OF INSTRUCTION IN RURAL SCHOOLS

IN preceding chapters of this report it has been pointed out that education in the rural schools of Virginia is of a very inferior character. Thus, in Chapter V it was shown that in the majority of rural schools only the merest skeleton of studies is provided, that many standards set by the State Course of Study for Elementary Schools are practically ignored, that the time allotments for various studies conform with no recognized standards, and that there is no uniformity or method in the apportionment of the teacher's attention to pupils in different grades. Further, in Chapter VI it was shown that the results of instruction in rural schools fall far below reasonable standards of accomplishment. Finally, it was shown in Chapters VII to IX that as a body teachers in rural schools are poorly educated, have seldom had any professional training, and in a large proportion of cases have had no previous experience in teaching.

Those facts show, among other things, the imperative need for the supervision of instruction in the rural schools of Virginia. In this chapter (i) present provisions are analysed, and (ii) suggestions are made for needed changes.

i.—PRESENT PROVISION FOR RURAL SCHOOL SUPERVISION

At present some provision is made for rural school supervision (1) through the division superintendent, (2) through supervisors of white schools, and (3) through supervising industrial teachers for colored schools.

(1). *Supervision by the Division Superintendent:* Theoretically the division superintendent among his numerous other duties, supervises instruction, and in most counties of the State no other provision is made for supervision. As a matter of

fact, however, he is primarily an administrative and executive officer, and in most cases does very little in the way of supervising instruction. This is due in part to the fact that many superintendents are unqualified to supervise classroom instruction, and in part to the fact that, even where superintendents are qualified, the task of classroom supervision is far too great for any one person in most divisions. The following facts indicate present conditions:

(a). Of eighty-six (non-city) division superintendents fifty-seven report that their entire time is devoted to school duties. Of the others fifteen report that they spend "nearly all" of their time in school work, while fourteen report that they devote from one-third to five-sixths of their time to the schools. This does not mean that they devote their time to the supervision of instruction, or even to school visitation. By far the greatest part of their time is devoted to administrative, executive, or business matters. Reports indicate that superintendents on the average devote from one-third to one-half of their time to school visits, and in most cases the actual supervision of classroom instruction plays little part in that work. It is safe to say that on the average not more than two or three days a week are spent by division superintendents in school visits. With rare exceptions division superintendents provide but little supervision of actual classroom instruction.

(b). Several division superintendents are not qualified to supervise classroom instruction. In Table 96 are presented figures showing that in 1918-19 there were twelve superintendents who had had no experience in teaching and twenty-one who had had less than three years of experience.

(c). In Table 97 are presented figures showing the size of non-city school divisions. Those figures show that on the average non-city divisions embrace an area of between 400 and 500 square miles, contain from 3,500 to 4,000 pupils, and engage the services of between 120 and 130 teachers. In the majority of divisions the superintendent could not possibly supervise instruction adequately, even if he had no other duties to perform.

It should be clear, as far as classroom supervision is concerned, (a) that many of the present superintendents are not qualified

by training or experience properly to supervise instruction, and (b) that in most divisions the area to be covered and the number of teachers to be supervised preclude the possibility of adequate supervision by superintendents.

(2). *Supervisors of White Schools:* Prior to 1918 supervisors for non-city white schools, except in so far as the division superintendents acted as supervisors, were found in less than five or six counties of the State, and in those counties for the most part somewhat irregularly as local funds permitted, or as the local authorities recognized their need. The State made no provision therefor. State funds were first made available for this purpose in 1918. In that year provision was made for supervision in the appropriation for "rural one-room and two-room and graded schools."

In accordance with that provision the State Board of Education set apart the sum of \$15,000 for use in co-operating with counties and districts in payment of the salaries of rural school supervisors during the school year 1918-19. For the school year 1919-20 that fund has been increased to \$30,000.

The conditions under which the State contributes to the payment of the salaries of rural school supervisors are: (a) the State will pay not to exceed \$500 towards the salary of each supervisor, provided the local authorities (county or district), supply an amount equal to that supplied by the State; (b) the State Board of Education reserves to itself the right to approve the appointments to fill these positions of rural supervisors, the actual selections to be made by the local authorities.

Under this plan all of the rural schools of the following counties received more or less supervision in 1918-19:—Albemarle, Culpeper, Elizabeth City, Page, Pittsylvania, Princess Anne, and Roanoke. In the following counties the schools of one or two districts received supervision,—Loudoun, Montgomery, Rockingham and Wise. Further, a supervisor of instruction was maintained for each of the counties of Charles City, James City and New Kent, those supervisors being employed as home demonstration agents during the summer months and for such services part of their salaries being provided from the Smith-Lever Fund. Also, supervision for some schools of two districts of Halifax County was provided through private contributions.

In addition, the State co-operated in providing funds to employ the principals of certain high schools in Russell and Wythe counties for one day each week to supervise the rural schools.

Of the supervisors employed during the session 1918-19 in co-operation with the State, the following facts may be noted: (a) few had such broad training as their duties should demand; (b) the experience of the majority is in amount all that might be desired; (c) the salaries paid, with no allowance for travel, are totally inadequate; (d) in several cases the areas to be covered are such as to render almost useless the type of supervision given,

(3). *Supervising Industrial Teachers for Colored Schools:* During the school year 1918-19 supervising industrial teachers were employed to supervise the colored schools of fifty-seven counties. This work was begun in 1908 and has been made possible through the co-operation of local school authorities and several private agencies. Not until 1918 were any State funds available. During the past school year approximately sixty per cent of the salaries of those supervisors was paid out of appropriation by the several counties by the State and out of the Smith-Lever funds. Several private agencies contributed the remaining funds necessary.

These supervising industrial teachers have performed very valuable work (a) by developing among the colored people a spirit of co-operation with the white people in school matters; (b) by arousing in the colored people an increased interest in better schools; (c) by assisting in the raising of funds for school improvement by private contributions; (d) by introducing simple forms of hand work into the colored schools; (e) by serving as home demonstration agents for the betterment of home conditions and the saving of food stuffs; (f) by supervising the work of many poorly trained teachers.

The work of these colored supervisors deserve the active support of local and State authorities. At present they are working for very inadequate salaries and sometimes at great personal sacrifice. More should be employed and better provision should be made by the State for their remuneration. For a very small expenditure of funds the State and the counties are receiving very large returns from this body of workers.

ii.—FURTHER PROVISION NECESSARY

The proper development of education in rural Virginia is impossible without better provision for the supervision of instruction. In any circumstances supervision is necessary and under present conditions it is imperative that a definite program for the supervision of rural schools be inaugurated. The survey staff recommends the organization outlined below.

(1). *The State Department of Education:* While supervision of classroom instruction is primarily a matter of the individual teacher, certain important elements involve the State Department of Education. The functions belonging to that department should include: (a) the establishment of standards for the course of study, time allotments and daily schedule (cf. Chapter V); (b) the publication of typical courses and programs for schools of various types (cf. Chapter V), as well as other bulletins; (c) provision for general State supervision; (d) provision for general conferences, etc.

(2). *The Division Superintendent:* The superintendent should have general oversight and control over the supervision of instruction in his division. It must be recognized, however, that his duties as an administrative and executive officer in most cases will not leave it possible for him to perform any great amount of direct supervision over classroom instruction. In any division with more than fifty teachers certainly he must have assistance in supervision and in the majority of divisions direct classroom supervision must be done principally by supervisors rather than by the superintendent.

(3). *Supervisors of White Schools:* In all divisions having fifty or more white teachers engaged one supervisor should be employed for every fifty white teachers, or major part of that number—such supervisors to work under the direction and authority of the division superintendent.

(4). *Supervisors for Colored Schools:* In each division employing over twenty-five colored teachers one supervisor should be employed for every fifty colored teachers, or major part of that number.

Unless some such provision is made for supervision children in the rural schools of Virginia must continue to receive a very

inferior grade of instruction. In the judgment of the survey staff provision for the adequate supervision of rural schools is one of the most pressing needs at the present time.

RECOMMENDATIONS

1. That in each non-city superintendency division having as many as fifty white teachers employed one supervisor of white schools be provided for every fifty teachers or major fraction of that number of teachers employed.

2. That the minimum salary of such supervisors be set at one thousand dollars.

3. That the State provide for the payment of one-half of the salaries of such supervisors.

4. That the minimum qualifications for such supervisors be set at full normal school graduation *and* three years of successful experience.

5. That in each non-city superintendency division having twenty-five or more colored teachers employed one supervisor of colored schools be provided for every fifty colored teachers or major fraction of that number of teachers employed.

6. That the State Board of Education establish minimum salary standards and minimum qualifications for such supervisors of colored schools.

7. That the State provide for the payment of one-half of the salaries of such supervisors for colored schools out of State funds or funds passing through the hands of the State Board of Education.

CHAPTER XV

THE SMALL SCHOOL AND SCHOOL CONSOLIDATION

VIRGINIA is at present a State primarily of small one-room and two-room schools. Of approximately sixty-five hundred non-city schools more than two-thirds are one-room schools, more than one-sixth are two-room schools, and less than one-sixth have three or more rooms each. Of all schools in the State (including those in cities) more than four-fifths are one-room or two-room rural schools, enrolling forty-four per cent of all white pupils, more than two-thirds of all colored pupils, and over one-half of all pupils of both races in the State. It is obvious that one of the greatest problems for education in Virginia is that created by the large number of one-room or two-room schools.

In previous chapters of this report it has been shown that the educational situation in one-room and two-room schools is serious. Initial difficulties are: (a) proper grading is very difficult when pupils of all stages of maturity and advancement must be taught by one teacher or by two teachers; (b) it is practically impossible to devote to each pupil or each grade the attention needed; (c) proper provision for education in small schools is expensive. To those necessary difficulties in Virginia are added at present other difficulties and defects previously indicated and in part shown in Table 98. They may be summarized as follows:

1. The average number of days per school term that one-room and two-room rural schools are open is 125 for white schools, 116 for colored schools, and 122 for both combined. Other non-city schools are open nearly one-third longer and city schools about two-fifths longer. One-room and two-room rural schools for whites are open on the average little more than two-thirds of a standard nine-month term, and colored schools of the same classes less than two-thirds of a standard nine-month term. Cf. Tables 6 and 7.

2. In the upper elementary grades of one-room and two-room non-city schools pupils are on the average more than a year older than the Virginia standard age, and two years older than the national standard. Colored children in those grades are about two and one-half years older than the Virginia standard and about three and one-half years older than the national standard. Cf. Table 21.

3. In one-room and two-room non-city schools over three-fifths of the white pupils are over-age for their grades according to the Virginia standard, and more than four-fifths are over-age according to the national standard. Of colored pupils in schools of the same class from three-quarters to nine-tenths are over-age, according to the Virginia standard, or from 93 to 98 per cent, according to the national standard. Cf. Table 22.

4. In one-room and two-room non-city schools nearly two-thirds of the white pupils have attended school a year or more longer than they should have attended if progress from grade to grade had been regular, and about three-quarters of the colored pupils have been in school a year or more longer than they should have been to reach the grades in which they are found, if progress had been regular. Cf. Tables 17 and 37.

5. In one-room and two-room non-city schools the ratio of average daily attendance to enrolment is less than sixty per cent. for white pupils and for colored pupils.

6. The average annual salary paid in 1916-17 to white teachers in one-room and two-room non-city schools was \$245, or about fifty-seven per cent of the average annual salary paid to teachers in larger non-city schools. For colored teachers in one-room and two-room non-city schools the average annual salary was \$167, as compared with \$225 paid to colored teachers in larger non-city schools. The poorest paid teachers in the State are those in one-room and two-room non-city schools, though their tasks are infinitely more difficult and call for much greater ability and skill than is demanded of teachers in any other type of school. Cf. Table 98.

7. In one-room and two-room non-city schools for whites the expenditure per pupil for teaching in 1916-17 was \$7.28, as compared with an expenditure of \$13.41 per pupil for the

same purpose in larger non-city schools. In schools of the same classes for colored children the expenditure per pupil was \$3.38, as compared with an expenditure of \$4.79 in larger non-city schools. Cf. Table 98.

8. In one-room non-city schools, and almost to an equal extent in two-room non-city schools, the educational offerings are commonly limited to the merest skeleton of subjects, and many important fields are entirely neglected. Cf. Chapter V.

9. In one-room and two-room non-city schools as a group, the time allotment of the teacher's attention to the different grades is such as to sacrifice the interests of the more numerous and dependent pupils in lower grades to the interests of fewer and less dependent pupils in upper grades. Cf. Chapter V.

10. In one-room and two-room non-city schools the time allotments to various studies is in general so chaotic that program making appears to depend on the whim of individual teachers rather than to follow any recognized principles. Cf. Chapter V.

11. In general, the least trained, the youngest, and the least experienced teachers are found in one-room and two-room non-city schools. Cf. Chapter VII.

12. While many excellent one-room and two-room non-city school buildings are found, the physical plant of such schools is, in general, poor, ranging down to types which should long since have been condemned, and as a group school buildings are poorly built, unhygienically kept, and wretchedly equipped. Cf. Chapter XVII.

13. One-room and two-room non-city schools receive less supervision than any other group of schools in the State, though their needs are much greater than those of any other group.

14. In many schools "sub-first," "primer," or "introductory" classes unnecessarily increase the number of grades for which instruction is provided.

15. Results of instruction in one-room schools are far inferior to those for any other type of school. Cf. Chapter VI.

What are the remedies for these intolerable conditions in Virginia? In general they are three: (a) provision for better teachers, better buildings, better supervision, and longer terms

in cases where one-room schools are the only types which can be provided; (b) the limitation of work in one-teacher schools to five grades; (c) reduction through consolidation of the number of one-room and two-room schools.

(a). *Better One-room Schools*: Sparsity of population and topographical conditions will always necessitate a large number of one-room or small two-room schools in Virginia, especially since separate schools must be maintained for white children and for colored children. In the western part of the State mountains and mountain streams must always more or less isolate communities and schools. In the tide-water regions creeks, rivers, and swamps must produce somewhat similar conditions. Throughout the State in general poor roads for the present must interfere seriously with school consolidation.

Probably from one-fifth to one-quarter, possibly one-third, of the children in Virginia must secure whatever elementary education they receive in one-room schools for a long time to come. This being the case, educational conditions in such schools must be greatly improved. This can only mean greater expenditure of money for longer terms, for better teachers, for better buildings and equipment, and for better supervision. On these topics see Chapters I, VII, XVII, and XIV.

It should always be remembered, however, that one-room schools can never provide an education of desirable standard, and that their maintenance should be considered as a last resort where school consolidation is impossible.

(b). *Five-grade one-teacher schools*: A second remedy for present conditions in one-teacher schools is found in the restriction of instruction to the first five grades.

At present fifteen counties in the State are reported by division superintendents to limit the number of grades taught in one-teacher schools to less than seven, the limit in one county being four grades, in ten counties five grades, and in four counties six grades. All report favorably on such limited one-teacher schools as compared with the usual unlimited school.

Doubtless there are some districts in the State where the limitation of one-teacher schools to five grades of instruction would work hardship, and certain exceptions to the proposed general regulation might well be allowed for cause on the

approval of the county board and the division superintendent. Two facts should be noted, however: (1) that the necessary choice is not between seven grades of good instruction and five grades of good instruction, but between seven grades of very poor instruction and five grades of much better instruction; (2) districts where one-teacher schools are a real necessity are far less numerous than is usually claimed, the real reason for such schools being the unwillingness of districts to pay for the two teachers needed, or to develop consolidated schools.

(c). *School Consolidation*: School consolidation, i.e., the maintenance of one larger school in place of two or more small schools, means better education because: (1) it permits better grading of pupils (or the substitution of graded classes for ungraded classes in the majority of cases); (2) better teachers can be secured; (3) pupils can receive a larger share of the time and attention of the teacher; (4) better buildings and better equipment can be provided without undue expenditure for overhead cost; (5) better teaching is made possible where teachers may be assigned to special classes or subjects, e.g., where one teacher may have had special training in cooking and sewing, or in music and drawing, or in manual arts; (6) better supervision is possible.

It is less costly (for the proper type of education) because: (1) for example, in some cases, three teachers can care for one group of seventy-five or one-hundred pupils in a consolidated school better than five teachers could care for five groups each of fifteen or twenty pupils separated in five one-room schools; (2) the care and upkeep of one consolidated school building costs less than the care and upkeep of three or more one-room and two-room buildings; (3) equipment and supplies (e.g., for music, cooking, sewing, agriculture, manual training, etc.) which are used in turn by many pupils may be furnished in a consolidated school at a reasonable cost per pupil unit, while the cost of the same equipment would be prohibitive for each of three or more schools; (4) supervision costs less for one consolidated school than for a single one-room school.

School consolidation began long since in some parts of Virginia and in some counties has progressed successfully. For the State as a whole, however, little has been done in the way

of consolidation, and in most parts of the State numerous one-room and two-room schools exist, not through any physical difficulties, but only because districts have failed to recognize the weakness of the small school or have permitted local influence to perpetuate those weaknesses. The members of the Survey Staff are not unaware of the difficulties, or in many cases the impossibilities of consolidation. Nevertheless, they cannot fail to note that in many cases consolidation has not taken place where perfectly possible and eminently desirable. The possibilities of school consolidation in Virginia have scarcely begun to receive attention.

Why has school consolidation been so neglected? Largely for one or more of the following reasons. (1) Convenience (pride is not the word) has dominated action in communities which insist on maintaining poor schools in their own immediate vicinity rather than joining with their neighbors in maintaining a good consolidated school. (2) The system of district boards and district schools has interfered seriously with school consolidation. (3) People have not realized how bad their small schools really are and how limited the education is which can be provided even in the best one-room and two-room schools. (4) Active attention on the part of the State Board and of the State Department of education has not been sufficiently in evidence, though more or less passively they have advocated consolidation and though section 612 of the Revised Code provides that the State Board of Education shall guard by regulation against such a multiplication of schools as will tend to cause a low grade of instruction in the schools, or in any other way impair their efficiency. (5) Groups of communities find difficulty in agreeing on the building of a school house of the consolidated type and on its location. (6) In very many parts of the State physical conditions (topography and poor roads) make consolidation totally impossible.

Beyond question school consolidation must proceed much farther if educational conditions in rural Virginia are to be improved. Means of furthering the movement are (1) a systematic analysis of conditions and possibilities for consolidation in each county by the division superintendent; (2) a campaign of propaganda and action by the State Board of Educa-

tion and by the State Department of Education; (3) State aid through subsidy for buildings of the consolidated school type; (4) the abolition of present district lines and the establishment of a county system of schools (Cf. Chapter XIX); (5) school re-organization as suggested in Chapter XVI.

A necessary corollary to school consolidation is the free transportation of pupils living at a distance from the school building. In Table 99 are presented figures showing the extent to which this has already developed in Virginia. Those figures show that one or more wagons are employed for the transportation of pupils in some part or parts of fifty seven counties. They also show, however, that of nearly five hundred non-city school districts three hundred sixty-one made no provision for the transportation of pupils in 1916-17. In some districts transportation is, of course, unnecessary. Nevertheless, the figures show that Virginia has scarcely begun the consolidation of schools and the transportation of pupils.

RECOMMENDATIONS

1. That the State Board of Education call for an investigation and report by each division superintendent, that report to include: (a) a school map of the county showing the location and type of each school, distances between schools, etc.; (b) such statistics concerning size of schools, length of terms, types of buildings, etc. as would assist in determining the possibilities of school consolidation; (c) recommendations concerning possible school consolidation.

2. That a member of the State Department of Education be detailed to assist county boards and division superintendents in securing school consolidation.

3. That for administrative purposes the district system be abandoned and that the county be made the unit for school administration and organization. (Cf. Chapter XIX.)

4. That the State adopt a policy of liberal State aid in providing for the free transportation of children to consolidated schools.

5. That instruction in one-room schools be limited to grades one to five inclusive. (Cf. Chapter XVI.)

6. That the "sub-first," "primer" or "introductory" classes, so-called, be eliminated in all one-teacher and two-teacher schools.

7. That the education offered in one-room and two-room schools be improved by: (a) providing better trained and better paid teachers (See Chapters VII-IX); (b) by providing better buildings and equipment (See Chapter XVII); (c) by providing better supervision (See Chapter XIV); and (c) by providing for a standard nine months term (See Chapter II).

CHAPTER XVI

SCHOOL ORGANIZATION

AT present the school system of Virginia provides eleven grades of instruction, the complete course being divided into seven grades of elementary and four grades of high-school education. This is commonly called the "seven-four" plan in contrast with the "eight-four" plan which is the standard organization in most parts of the country and with the "five-six" or "six-six" plan and their variations rapidly growing in favor.

In the judgment of the Survey Staff the present school organization is not well suited to the needs of the State, and involves many defects which seriously handicap the education of Virginia children. Those defects may be summarized in this chapter and proposals made for improvement.

i.—SOME EXISTING CONDITIONS

1. In the public schools of Virginia pupils tend to leave school at an early age, after a brief period of attendance, and at an early stage of their education elimination begins early and progresses rapidly.¹

2. There is a tremendous amount of retardation, especially in the non-city schools.¹

3. About two-thirds of the schools of Virginia are attempting the impossible task of providing seven grades (sometimes eight grades) of instruction with one poorly-trained teacher.²

4. The average size of the upper grades in one-teacher white schools is about three pupils, in two-teacher white schools about five pupils, and in three-teacher white schools about seven or eight pupils.

¹ See Chapter IV.

² See Chapter XV.

5. In the smaller schools of the State the instruction provided for each grade or received by each pupil is spread so thin that effective education is impossible. Neither upper grade pupils nor lower grade pupils can receive the proper attention of the teacher, and unfortunately in most cases the interests of the younger pupils are sacrificed for the benefit of pupils in upper grades.¹

6. The education of pupils in the upper elementary and early high-school grades is extremely costly, if properly provided, because pupils are scattered in small numbers in several small and weak schools.

7. The small numbers of pupils in the upper grades of most non-city schools precludes the possibility of providing studies requiring special equipment such as science, and all vocational subjects.

8. In the school year 1917-18 (according to the report of the State High School Supervisor) there were 552 high schools in Virginia. Of those only 183 (about one-third) were four-year accredited schools, while 147 (about one quarter were three year or four-year unaccredited schools, and 222 (about two-fifths) were unaccredited schools, offering less than three grade-years of high school work. A somewhat different classification given in the Report of the Superintendent of Public Instruction for 1917-18 indicates that there were 627 schools attempting to provide some kind and some amount of high-school instruction, 227 of those schools being classified as First Grade High Schools, 184 as Second Grade High Schools, 164 as Third Grade High Schools, and 90 as schools providing one class grade of high school work. *There are far too many over-ambitious small schools in Virginia attempting to provide high-school work, for the most part at the expense of the lower grades.*

9. An average of less than ten pupils to a grade is found in one-third of the four-year high schools, in nearly three-quarters of the three-year high schools, and in almost all of the schools maintaining less than three high-school grades. This means very limited secondary education at very high cost.

¹ See Chapter V.

10. The median per pupil cost of high-school instruction in 1917-18 was \$42.40 in accredited non-city high schools, and \$50 in non-accredited non-city high schools, as compared with a per pupil cost of \$10 for elementary school instruction in non-city schools maintaining accredited or unaccredited high-school grades.

11. In 1917-18 fifteen counties of Virginia had no accredited four-year high schools. Twenty-eight counties had each one or more accredited four-year high schools, but also each had at least five or more unaccredited schools claiming to offer two, three, or four years of high school work, for the most part offering less than twelve units of high school work.

12. In 1917-18 Virginia had one non-city high school of some sort for every 29 high school pupils enrolled. In high schools of the "First Grade" the average high school enrolment was 54, in those of "Second Grade" it was 24, in those of "Third Grade" it was 15, and in schools offering one grade of high school work it was 7.

Summarizing present conditions we may say that the present school organization has resulted in a situation where neither the elementary schools nor the high schools can perform their proper functions.

ii.—REORGANIZATION RECOMMENDED

Few of the defects of the present school organization mentioned above are peculiar to Virginia. They have been found, sometimes in less, sometimes in more aggravated form, in all parts of the country, and recognition of them has led to a comprehensive reorganization, particularly affecting the upper part of the school system.

This movement has in general taken the form of a six-grade elementary education, followed by six grades of secondary education, the latter being divided into two departments commonly denominated "junior" and "senior" high schools. In Virginia, with its eleven-grade school course, the movement has already found exemplification in the junior and senior high schools

of Richmond and Roanoke, and the reorganization has been advocated by the State Board and State Department of Education.

The latest report of the Supervisor of High Schools contains the following statements:

"Ordinarily, in systems of schools with eight elementary grades, we find the introduction of the junior high school resulting in the organization of elementary schools of six grades, junior high schools of three grades, and senior high schools of three grades—the so-called 6-3-3 plan. In Virginia, along with many other States in the South, we have only seven elementary grades, and the junior high school of the rural districts, therefore, will embrace the seventh elementary grade, and the eighth and ninth high school grades."

The State Board of Education has abandoned its triple standards of First, Second and Third Class high schools, and in the future will standardize only the junior and senior high schools. High schools that do not correspond to either of these two types should seek, as soon as possible, to conform to one of the two types of organization.

In the judgment of the Survey Staff the State Supervisor and the State Board of Education are right in providing for the reorganization of the School system. A change is imperative. The Survey Staff does not believe, however, that State Supervisor and the State Board are right in providing for a six-three-two organization, but recommends for the present a five three-three organization, later to be converted into a six-three-three system.

Reasons for the modification of the State Board's plan are as follows:

(1). At present the median age of white children in the sixth grade of non-city schools is approximately thirteen, in the seventh grade, fourteen and a half, and in the first grade of the high school nearly fifteen.¹ The junior high school should enroll children before the upper age limit of compulsory attendance is reached, and before the forces of elimination are strong. At present, this would mean that the junior high school should begin when children are less than fourteen. If it begins at the seventh grade its beginning would practically coincide with the end of compulsory attendance, and the influence of the break in the school system would only add one more factor to elimination. At present nearly nine-tenths of non-city white pupils remain

¹ See Table 21.

in school up to the age of thirteen, and only a little over three quarters remain up to the age of fourteen.¹

(2). At present from 85 to 89 per cent of white children remain in school for at least six years, but only 71 or 72 per cent for seven years.² With the large amount of retardation now found, this means that relatively few children reach the seventh grade and would never come under the influence of the junior high school if it began with the seventh grade.

(3). At present about eighty-seven per cent of white pupils reach the sixth grade, but about seventy per cent only reach the seventh grade.³

(4). In rural districts a junior school covering the seventh, eighth, and ninth grades would enroll much fewer pupils than one covering the sixth, seventh, and eighth grades (in the present eleven-grade course), and reasonably sized grades are essential for effective high school work.

(5). The 6-3-2 plan would reduce the senior high school to two grades of instruction, preventing effective organization and administration.

(6). The 5-3-3 plan is recommended for the present (instead of the 6-3-3 plan) only because the Survey Staff does not believe in suggesting too extensive reorganization at one time. Eventually, and in the near future, Virginia should adopt the practice found in all parts of the country except the South, and provide an education for children from the ages of six to eighteen. When that is done the twelve grades of instruction should be organized on the 6-3-3 plan.

By many teachers and school officers in Virginia it has been suggested that no definite restrictions be set for the division of the five grades of secondary education afforded under the reorganization, but that various combinations be permitted so that systems might be organized on a 6-3-2, 6-2-3, 6-4-1 or other plan, according to the judgment of the districts. It

¹ See Table 21.

² See Table 18.

³ See Table 20.

should be obvious that any desirable degree of standardization would be impossible under such conditions. Whatever organization be preferable, it should be made standard.

In its complete form the school organization proposed by the Survey Staff would include for any county or city the provisions outlined below:

(1). A number of five-grade (later to be converted into six-grade) elementary schools distributed according to the distribution of population much as at present, but with greater consolidation;

(2). A much smaller number of three-grade junior high schools so distributed as to permit the grouping of upper grade pupils coming from several different elementary schools;

(3). A still smaller number of senior high schools receiving pupils from several junior high schools.

Diagrammatically the organization for any one region may be represented as in Figure.

Elementary Schools.....	<u>1, 2, 3, 4, 5,</u>	<u>6, 7, 8, 9, 10,</u>	<u>11, 12, 13, 14, 15</u>
Junior High Schools.....	<u>1</u>	<u>2</u>	<u>3</u>
Senior High Schools.....		1	

Thus elementary schools numbers 1, 2, 3, 4, and 5 would contribute their sixth grade pupils to junior high school number 1, and junior high schools numbers 1, 2, and 3 would contribute their ninth grade pupils to senior high school number 1. In cities the elementary schools, junior high schools, and senior high schools are ordinarily housed in separate buildings. In rural districts smaller schools will house the first five grades only, larger schools will house elementary grades and junior high school grades, while the largest schools will house all eleven grades.

Obviously topographical conditions, the distribution of population, and other factors must determine in large measure the articulation of schools under the proposed reorganization as under any form of school organization. No form of organization can eliminate the inherent difficulties of education and

school administration in sparsely settled districts. The best that can be done is to minimize such necessary disadvantages as much as possible. That can best be done under the proposed reorganization. In the judgment of the survey staff the alternative is a perpetuation of the intolerable conditions outlined in the earlier part of this chapter.

RECOMMENDATIONS

1. That the school system be reorganized for the present so as to provide, as outlined in this chapter: (a) elementary education consisting for the present of five grades of instruction; (b) junior high school education, consisting of three grades of instruction in grades six, seven, and eight; (c) senior high school education consisting of three grades of instruction in grades nine, ten and eleven.

2. That in due time, and after the above reorganization has been accomplished, the school course be lengthened to twelve grades by extending elementary instruction to include six grades.

CHAPTER XVII

SCHOOL BUILDINGS, GROUNDS AND EQUIPMENT

THE selection of school sites, the development of school grounds, the construction and care of school buildings, and provision for material equipment, are vital factors affecting the efficiency of education and the health of pupils.

What are the conditions in Virginia? Are school sites well selected? Are grounds of proper character provided? Are buildings well planned and well constructed? Are buildings and grounds well cared for? Is the proper equipment supplied?

In an attempt to secure information which would answer these questions members of the Survey Staff by personal visits investigated about six hundred non-city school buildings of various types in eighteen counties and nearly all city school buildings. The results of those investigations are discussed briefly in this chapter.¹

A.—NON-CITY SCHOOLS

In Tables 104 to 107 are presented figures showing the ratings assigned to 574 non-city schools of Virginia with respect to various items. Those ratings are analyzed and discussed in some detail in following sections which deal with special phases of the school plant. In anticipation, however, and as rough measures of the school plant as a whole, we may note the following facts indicated by the summarizing figures presented in Table 108:

(1). One-half of the aggregate of ratings assigned to one-room schools for white children and nearly two-thirds of the aggregate of ratings assigned to one-room schools for colored children are D or E indicating for various items total absence, complete defect, or very unsatisfactory provision.

(2). As larger schools are considered conditions improve noticeably. One-room buildings are the poorest.

¹ See note at close of this chapter concerning the methods employed.

(3). Of all ratings assigned to all non-city schools for white children more than one-third were D or E and of all ratings assigned to non-city schools for colored children nearly three-fifths were D or E.

(4). Of all ratings assigned to all non-city schools for white children about one-sixth were E and of all ratings assigned to all non-city schools for colored children approximately one-third were E—indicating total defect or complete absence of the items involved.

Obviously these figures for the aggregates of ratings assigned can give a rough indication only of the general situation, since in those aggregates the relative importance of various items is ignored. Hence it is necessary to consider separately the various groups of items. This is done below.

I.—GROUPS AND SITES

Recognized standards for the size of school grounds and standards accepted by the State Board of Education require at least two acres of land for one-room or two-room schools. In Table 109 are presented figures showing the number of schools with grounds of various sizes in 1917 (latest available figures for the State as a whole.) Those figures show: (a) that only 18 per cent of non-city schools have grounds of two acres or more each, (b) that nearly one-third of all non-city schools have each less than one acre of land, and (c) that about one-sixth of all non-city schools have less than one-half acre of land.

Space is not available here to present in detail all the arguments which demand better provision for school grounds. It must suffice to point out, (a) that the arguments have had sufficient force to establish a minimum standard of two acres of land for schools in most states of the country, (b) that such a standard is recognized as valid by the Virginia State Department of Education, and (c) that proper provision for physical education and play, for school gardens, and instruction in agriculture, and for the proper setting of buildings, outhouses, etc., requires not less than two acres of land. In cities available sites, the cost of land, and other factors frequently render

difficult, if not impossible, proper provision for school grounds. This is not true, however, for non-city districts and there can be no justification for the inadequate grounds now provided in most parts of the State.

In Tables 104 to 107 are presented figures showing the ratings assigned to schools with respect to the general character of school grounds (natural features considered with due regard to the selection of site as conditioned by surrounding territory), the condition of grounds (artificial conditions as affected by provision for its care), and the accessibility of the school. Those figures indicate that sites have been chosen with reasonably satisfactory care from the view point of natural features of the territory and accessibility. In some cases it was apparent to the investigators that proper judgment was not exercised, but on the whole the problem of suitable sites had been met reasonably well. In this connection, however, it should be noted that the rating A with respect to "accessibility" was assigned to schools where no pupil had to walk more than two miles to school, school transportation always being allowed for. Hence the figures presented show that in 193 of the white schools and 112 of the colored schools investigated some of the children in each case had to walk more than two miles to school. Thus importance is attached to the problems of consolidation and transportation considered in Chapter XV.

II.—BUILDINGS

The story of schoolhouse construction and care is told in Tables 104 to 107. The outstanding facts shown may be summarized here.

(1). Of 407 school buildings for white children only 230 were of a general plan which could justify ratings of A, B, or C—i.e., were at all satisfactory, while 113 were barely possible under the lowest permissible standards and 64 were apparently built with almost total disregard of school needs. The conditions are conspicuously worst in one-room schools.

(2). Of 167 school buildings for colored children only 44 were of a general plan at all satisfactory, while 123 received ratings of D or E. Of the one-room buildings for colored children 97 out of 112 investigated received D or E ratings.



Wild Cat School. Wise County.



Ebenezer. Smyth County.



Eastville. Northampton County.

BUILDINGS OF THE "A-B" TYPE.



Rough and Ready. Rockbridge County.



Washington Academy. Amelia County.



Ottoman High School. Lancaster County.

BUILDINGS OF THE "D-E" TYPE.

(3). Of 407 school buildings for white children 183 make no provision for cloakrooms and in one-room schools 114 out of 164 make no such provision.

(4). Of 167 school buildings for colored children 117 make no provision for cloakrooms and in one-room schools 90 out of 112 make no such provision.

(5). Of 407 school buildings for white children 116 were assigned ratings of only D or E with respect to provision for heating.¹

(7). Of 407 school buildings for white children 194 received ratings of only D or E with respect to provision for ventilation.¹

(8). Of 167 school buildings for colored children 136 received ratings of only D or E with respect to provision for ventilation.¹

(9). Of 407 school buildings for white children 181 provide each window space equal to not more than fifteen per cent of the floor space and 78 provide not more than ten per cent of window space.²

(10). Of 167 school buildings for colored children 133 have each window space equal to not more than fifteen per cent of the floor space and 82 provide not more than ten per cent of window space.²

(11). Of 407 school buildings for white children 141 have windows so arranged as to interfere with instruction and to endanger the eyesight of pupils.³

(12). Of 167 school buildings for colored children 129 have windows so arranged as to interfere with instruction and to endanger the eyesight of pupils.³

(13). More than one-quarter of all school buildings for white children received ratings of D or E with respect to condition of repair—showing great neglect of school property.

(14). Between one-third and one-half of all school buildings for colored children show great neglect with respect to conditions of repair.

¹ For further discussion see Chapter XII.

² The State law requires at least twenty-five per cent. That is too high. Twenty per cent. is the usual standard. See Chapter XII.

³ See Chapter XII.

(15). Of 407 school buildings for white children 102 (one-quarter) received ratings of only D or E with respect to provision for water supply.¹

(16). Of 167 school buildings for colored children 59 received ratings of only D or E with respect to provision for water supply.¹

(17). Of 407 school buildings for white children 133 received ratings of D or E for toilet facilities and 191 received ratings of D or E for the condition of toilets.¹

(18). Of 167 school buildings for colored children 87 received ratings of D or E for toilet facilities and 93 received ratings of D or E for condition of toilets.¹

(19). Of 407 school buildings for white children 248 received ratings of D or E for fuel storage facilities and 191 made no such provision.

(20). Of 167 schools for colored children 123 received ratings of D or E for fuel storage facilities and no such provision at all was made in 104 of those schools.

In view of these facts one is forced to the conclusion that in very large proportion non-city school buildings are badly planned, are improperly constructed, and receive inadequate care after erection. Naturally conditions vary widely in different parts of the State or in different districts of the same county. In some counties buildings are almost uniformly satisfactory; in others they are almost uniformly bad. In the judgment of the State supervisors who co-operated in this building investigation the conditions found in the eighteen counties intensively surveyed are truly representative of conditions in the State as a whole.

In this connection it may be added that the bad conditions found are not confined to old buildings. A large proportion of the buildings erected within the past five years manifest an almost total disregard of standards and should never have been permitted.

Where does the difficulty lie in securing good school buildings? The State law sets up for school buildings standards which in general are in accord with recognized standards and good prac-

¹ See Chapter XII.



Radium (Colored), erected 1918. Greenville County.



Caldwell, erected 1918. Giles County.



Woodville (Colored), erected 1915. Henrico County.

RECENTLY ERECTED SCHOOL BUILDINGS.

Code, Section 1489. "No school house shall be contracted for or erected until the site, location, plans and specifications therefor shall have been submitted to and approved in writing by the division superintendent of schools, whose action in each case shall be reported by him to the State Board of Education."

tice: e.g., (a) the law forbids the contracting for or erection of school houses unless the site, location, plans and specifications are first submitted to and approved in writing by the division superintendent; (b) the law provides that the division superintendent shall not approve any plans for school buildings or additions thereto unless proper provisions are made for size of rooms, ventilation, fire protection, adequacy of window lighting, arrangement of window lighting, sanitary toilets, etc.¹

The difficulty lies, not in the standards which are set by the statutes and the regulations of the State Board of Education, but in the facts: (a) that local school authorities ignore those standards and violate at least the intent of the law; (b) that division superintendents in many cases neglect their sworn duties; (c) that effective penalties for violations either are not provided or are not enforced.

The obvious remedy is found in an enforcement of the present law and such amendments to that law as will ensure its effectiveness. Particularly important here is the need for such supervision of buildings as may make possible the enforcement of the law. To that end the Survey Staff recommends that a supervisor of school buildings and grounds be added to the staff of the State Department of Education.

III.—EQUIPMENT AND ACCESSORIES

In Tables 104 to 107 are presented figures showing the ratings given to certain equipment and accessories in non-city schools. The principal facts disclosed by those figures may be summarized here.

(1). Of 407 non-city schools for white children 187 either provide no desks at all for teachers or desks practically useless for necessary purposes. Of 162 one-room schools 108 manifested such neglect.

(2). Of 167 non-city schools for colored children 143 either provide no desks for teachers or desks practically useless. Of 112 one-room schools 103 manifested such neglect.

(3). Of 407 non-city schools for white children 116 provided pupils' desks almost wholly unfit for use. Of 162 one-room schools 72 manifested such neglect.

¹ Revised Code Section 673.

(4). Of 167 non-city schools for colored children 125 provided pupils' desks almost or wholly unfit for use. Of 112 one-room buildings 91 manifested such neglect.

(5). Of 407 non-city schools for white pupils 111 had pupils' desks badly arranged to permit the proper direction of lighting and with proper regard to blackboards and other instructional needs.

(6). Of 148 non-city schools for colored children 82 had pupils' desks badly arranged.

(7). Of 407 non-city schools for white children 231 received ratings of D or E with respect to provisions for maps, globes and, charts—indicating no provision or practically useless material.¹

(8). Of 167 non-city schools for colored children 151 received ratings of D or E with respect to provisions for maps, globes and charts.¹

(9). Of 407 non-city schools for white children 157 received ratings of D or E for blackboards—indicating no provision or practically useless equipment.¹

(10). Of 167 non-city schools for colored children 130 have either no blackboards or blackboards practically useless.¹

(11). Of 407 non-city schools for white children 242 had either no window shades or shades practically useless.

(12). Of 167 non-city schools for colored children 132 had either no window shades or shades practically useless.

Comment on the facts disclosed by these figures would be superfluous. There can be no doubt that in very large proportion the non-city schools of Virginia lack even the minimum essentials of equipment necessary for instruction and school room management.

B.—CITY SCHOOLS

In Tables 110 and 111 are presented figures showing the scores on the Strayer Scale assigned to 102 city school buildings for white children and to 38 city school buildings for colored children.² They are summarized in Table 112.

¹ See Chapter V.

² For a description of the methods employed in scoring city school buildings, see the note at the end of this chapter.

From those figures the following facts may be learned:

(1). Two-fifths of all city school buildings for white children were assigned scores between 800 and 980. This means that these are good buildings and compare very favorably with school buildings above the average in other states.

(2). No city school building for colored children received a rating above 900 and only two such buildings were rated above 800. In all probability the colored school now in process of construction at Petersburg will easily be worthy of a score above 900.

(3). Nearly one-half of all city school buildings for white children received a rating of between 600 and 800. Of those buildings 26 received ratings of 700 to 800 points and may be considered as of approximately average grade, while 24 received ratings of 600 to 700 points and must be considered as noticeably below average.

(4). Of city school buildings for colored children 11 (29 per cent) were rated between 700 and 800 and may be considered as of above average quality while 5 were rated between 600 and 700 and must be considered below average.

(5). Of city school buildings for white children 11 were rated below 600 and must be considered as markedly defective.

(6). Of all city school buildings for colored children about one-half were rated below 600 and must be considered markedly *defective*. At least six city school buildings for colored children, and probably several more, are public disgraces and should be condemned at once.

Detailed consideration of city school buildings is here impossible; cities vary widely in the character of the school buildings provided and even within cities great variability is manifest. Petersburg and Richmond provide the best school buildings and Petersburg easily leads the State.

RECOMMENDATIONS

1. That section 824 of the Code, as amended by the Acts of Assembly, 1912, page 78, be further amended so as to provide that when application is made to the judge of the circuit court

for the appointment of an attorney to examine the title of land that it is proposed to purchase for school uses, that such appointment be not made unless and until the division superintendent shall have filed in writing his approval of the site which it is proposed to purchase.

2. That the State Board of Education adopt a regulation requiring not less than two acres of ground for each building hereafter erected, provided that for reason the State Board of Education may waive this requirement.

3. That a law be enacted making it illegal for any school board to issue a warrant in payment for the erection or remodeling of any school building until the division superintendent has certified to the clerk of the board in writing to the effect that he had examined and approved the plans and specifications for the proposed building or remodeling.

4. That a law be enacted requiring that 20% of the contract price of every building erected for school purposes be withheld until there is filed a statement in writing from a duly authorized representative of the State Board of Education to the effect that he had examined the building and found it to be according to the plans and specifications and that the workmanship is satisfactory.

5. That a Supervisor of Buildings be employed by the State Board of Education to devote his entire time to the inspection of plans and specifications for school buildings and the inspection of same when erected and that it be illegal for any building to be erected until his approval of the plans and specifications is filed in writing with the division superintendent.

6. That the State Board of Education adopt regulations fixing certain minimum standards for school building equipment with suitable provisions to ensure the presence of such equipment in all buildings as rapidly as possible.

NOTE ON THE METHODS EMPLOYED IN RATING THE SCHOOL PLANT

For the intensive investigation of non-city school buildings eighteen counties were selected on the basis of all records available. The counties selected were Albemarle, Amelia, Appomattox, Caroline, Carroll, Charlotte, Giles, Greenville, Henrico, Henry, Isle of Wight, Lancaster, Northampton, Rockbridge, Rockingham, Smyth, Stafford

and Wise. Those counties contain 834 white schools and 303 colored schools—total 1,137. Of those 407 white schools and 167 colored schools were investigated—total 574. Care was taken to include typical one-room schools, two-room schools, three-room schools, and schools having four or more rooms in proper proportion. There can be little doubt that the schools investigated are fairly representative of non-city schools throughout the State.

The various items of the school plant rated by the investigators are shown in Table 104. They were rated each on a scale of A, B, C, D or E as indicated in that table. In general, those ratings may be interpreted roughly as follows: A indicates that for the item involved the school is thoroughly acceptable and meets well good standards as recognized throughout the country; E indicates that for the item involved proper provision is either lacking or thoroughly unsatisfactory; C indicates a condition average-fair; B and D indicate conditions intermediate between A and C or between C and E respectively; D commonly indicates conditions approaching those thoroughly unacceptable.

The staff of building examiners included four of the State supervisors, four members of the faculties of State normal schools, and Mr. Jackson Davis, Field Agent for the General Education Board. All of these are thoroughly familiar with State conditions. In their judgement the schools investigated are representative of schools throughout the State.

To ensure all possible uniformity in rating by the different examiners definite specifications were set for rating each item and two days were spent in a preliminary rating of several buildings by the entire staff, each examiner rating each school independently. Those independent ratings were then compared and provision made to eliminate individual variations in grading as far as possible. In the judgment of the examining staff the individual variations of staff members were reduced to a minimum and the ratings given by different investigators are reasonably uniform.

City school buildings were investigated by four members of the Survey Staff. The Strayer Score Card for City School Buildings was employed, with certain modifications for some smaller buildings.

By that method a perfect score for any building is set at 1,000 points, with definite specifications for all the various items involved in provision for a perfect city school building. This method has been employed in a great many cities of the country and reasonably accurate standards have been established.

CHAPTER XVIII

STATE ORGANIZATION AND ADMINISTRATION

IN Virginia, as in thirty-six other States of the Union, the public school system is administered through centralized State agencies which include the State Board of Education, the State Superintendent of Public Instruction, and the State Department of Education.

i.—THE STATE BOARD OF EDUCATION

Provision for the State Board of Education is found in section 130 of the State Constitution adopted in 1902.

"The general supervision of the school system shall be vested in a State Board of Education, composed of the Governor, Attorney-General, Superintendent of Public Instruction and three experienced educators, to be elected quadrennially by the Senate, from a list of eligibles, consisting of one from each of the faculties, and nominated by the respective boards of visitors or trustees of the University of Virginia, the Virginia Military Institute, the Virginia Polytechnic Institute, the State Female Normal School at Farmville, the School for the Deaf and Blind, and also of the College of William and Mary so long as the State continues its annual appropriation to the last named institution.

"The board thus constituted shall select and associate with itself two division superintendents of schools, one from a county and the other from a city, who shall hold office for two years, and whose powers and duties shall be identical with those of other members, except that they shall not participate in the appointment of any public school official.

"Any vacancy occurring during the term of any member of the board shall be filled for the unexpired term by said board."

Thus the State Board of Education is composed of eight members, chosen in three different ways—three being ex-officio members and owing their position on the board to popular vote for other offices, three being chosen by the Senate from nominated members of the faculties of State institutions, and two being chosen by those six ex-officio and representative members.

According to accepted standards and best practice, the method at present employed for the organization of the State Board of Education in Virginia is open to severe criticism in the following respects.

(1). With its present organization the State Board of Education as a whole has no official responsibility either directly to the people or indirectly to them through any single branch of the State government. Of the three ex-officio members the State Superintendent is directly responsible to the people, while the governor and attorney-general are also responsible to the people but primarily for duties other than those as members of the Board of Education. On the other hand, the representative members of the board owe responsibility directly to the Senate and to the trustees of their respective institutions. Finally, the two division superintendents as members of the board owe direct responsibility to the other six members of the board and (perhaps more practically than theoretically) to the citizens of their own divisions. It would be difficult to devise a plan by which the definite location of responsibility could be more completely obscured.

(2). With the exception of the State Superintendent of Public Instruction the ex-officio members of the Board owe their position thereon to election on the basis of fitness for other governmental duties. It cannot be expected that they will always be men well suited for membership on that board or especially interested in the work of the public schools.

(3). Ex-officio membership always means the presence on the board of men who owe their position to political factors. That does not mean that such members are necessarily affected by political influences in their board activities, but it does mean that the practice makes possible the introduction of political influence in educational matters. Instances have not been unknown in Virginia.

(4). The presence of institutional representatives on the board is contrary to sound policy because: (a) it violates a fundamental principle of governmental administration by permitting institutional representatives to participate in the determination of State educational policies which may easily affect their own institutions (e.g., policies involving teacher training and certification, the standards for accrediting high schools); (b) it is based on the theory that a State Board of Education should be in part an "expert" board, and on the assumption

that college officers are commonly "experts" in public school education and its administration—neither of which assumptions is sound. All modern standards call for a "lay" board of education.

(5). Provision for the presence of division superintendents on the board further violates the principle that the board should be "lay" rather than "expert" or representative. It also violates the principle that "special interests" should not participate in the determination of State policies designed to control their own activities.

(6). Accepted standards and the best practice demand that the State Superintendent should not be a member, much less the presiding officer, of the State Board.¹

(7). Experience throughout the country has shown that the continuity of educational policies and efficiency in administration are best conserved when membership on the State Board is so arranged that its change is gradual rather than periodic. This is accomplished by providing for a "revolving" board, i.e., a board the members of which enter and leave office at different times. Under present provisions the membership of the State Board tends to remain relatively constant for four years (except for the two division superintendents) and then to change abruptly, except as the members may be reappointed. Provision should be made for a "revolving" board in Virginia.

(8). Any board composed of an even number of members is undesirable because of the difficulties of a tie vote on any important question.²

Of the thirty-eight States which have State boards of education eight have ex-officio boards. Of the other States twenty-eight have appointed boards, twenty-two giving the appointive power to the Governor, four giving it to the State legislature, one giving it to popular vote, and one State giving that power to the State superintendent. Thus it is seen that the commonest practice is to eliminate provisions for ex-officio or representative membership and to have the board of education appointed by the governor, thereby reducing the danger of political influence and centering responsibility where it is definitely and

¹ See Section ii. of this chapter.

² *E. g.*, The 1915-16 deadlock on text-book adoptions.

clearly located. The obviously political possibility that the Governor may "pack" the board may easily be avoided by provision for a board "revolving" in such a fashion as to preclude the appointment of a majority of the members of the board during the governor's term of office.

The Survey Staff recommends a revision of the State Constitution and of the State law so as to provide for a State Board of Education composed of seven members, one to be appointed by the governor each year, to hold office for seven years. That board should be essentially a lay board exercising general legislative and judicial supervision over public education, and should employ the State Superintendent of Public Instruction as its administrative and executive officer. Its powers and duties should be much the same as at present, except (a) it should take over the duties of the present Virginia Normal School Board (Cf. Chapter VIII); (b) it should have the power and duty to prepare a list of eligible candidates or approve candidates for the positions of division superintendents, but should not appoint those officers (cf. chapters XIX-XX); (c) it should have the power and duty to select the State Superintendent of Public Instruction (cf. section II of this chapter); (d) it should be limited in its power to initiate purely professional measures or to interfere directly in the administration of purely professional matters (cf. section II of this chapter).

ii.—THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

In thirty-three States of the Union the State Superintendent of Education is elected by popular vote, in ten States he is appointed by the Governor, and in five States he is appointed by the State Board of Education.¹

In Virginia the election of the State Superintendent of Public Instruction by popular vote is provided for in section 131 of the State Constitution (1902).

"The Superintendent of Public Instruction, who shall be an experienced educator, shall be elected by the qualified voters of the State at the same time and for the same term as the Governor. Any vacancy in said office shall be filled for the unexpired term by the said board.

"His duties shall be prescribed by the State Board of Education, of which he shall be ex-officio president; and his compensation shall be fixed by law."

¹ Ten States have no State Board of Education, so that appointment by the State is found in five of the thirty-eight possible cases.

In spite of the rather general practice of selecting a State Superintendent by popular vote the practice is unsound in almost every way and is rapidly giving way to the practice of making the State Superintendency an appointive office in the charge of the State Board of Education, the principal reasons against the older *practice* and for the newer being as follows:

(1). Present *practice* in Virginia makes the highest educational office involving professional requirements a matter of politics, and, as a necessary result, the candidate for election or re-election to the superintendency is constantly encouraged (if not almost forced) to be guided in part by the dictates of political expediency rather than by the dictates of sound educational policy. The present plan exposes the Superintendent of Public Instruction to strong political influences, which must to some extent determine his acts or interfere with his duties.

(2). More and more the State superintendency is demanding a high degree of professional and expert services. That consideration is placed in the background when the superintendent is elected by the people on a political ticket. Success in securing election is dependent less on the candidate's ability to administer a system of education than to conduct a political campaign. The two qualities are rarely united in one man. Professional experts, of whom the State Superintendent of Public Instruction is one, should never be elected by popular vote, but should be selected indirectly by the people through their representatives, who have the opportunity to examine and judge the candidates' qualifications.

(3). Present practice in Virginia causes a most peculiar and undesirable complexity of relations between the State Board of Education and the State Superintendent of Public Instruction. The latter is elected by the people; his duties are prescribed by the Board (of which he is a member and ex-officio president), and his salary is determined by the General Assembly. Thus the State Board has the power to fix the duties of the State Superintendent, but has no direct power to compel him to carry out its instructions. On the other hand the State Superintendent, as the directly elected representative of the people, and perhaps elected on the platform of a definitely

pledged educational program, may find the fulfilment of that pledge absolutely blocked by a State Board of Education, which owes direct responsibility to no one in particular.

(4). Arising out of this complexity of relations between the co-ordinate authorities of the State Board and the State Superintendent is the fact that no clear line of distinction is or can be drawn between their proper duties and powers. Thus, on the one hand, the superintendent is called upon as a member of the board to determine in part duties which as superintendent he is called upon to carry out, and, on the other hand, the State board attempts to deal with the details of matters which should be left entirely in the hands of the superintendent and his corps of experts in the Department of Education. A proper division of the legislative and judicial functions of the board and the technical and executive duties of the superintendent is impossible under the present plan.

(5). The popular election of a superintendent requires the selection of a resident elector of the State. The number of men well qualified to head the educational system of a State like Virginia is not large and the field of choice should not be unnecessarily limited. In other States, (e.g., New Jersey, Massachusetts, New Hampshire) it has sometimes been found necessary or desirable to select a superintendent from without the State. Virginia should be able to select the best man available wherever he may be found.

(6). The popular election of the State superintendent limits the number of available candidates to those able to finance a State-wide political campaign, to those able to secure political support (seldom without incurring political obligations), and to adherents of the dominant political party or faction.

(7). The State Constitution ordains that the superintendent's salary shall be set by law. The law fixes his salary at \$3,500 and provides that it shall not be changed during the term for which he is elected. Two criticisms may be offered. (a) The salary provided is too low—actually lower than the salaries of division superintendents in some cities of the State. In the long run Virginia cannot hope to secure and retain the services of a high-grade State superintendent at a salary of less

than five thousand dollars. (b) As long as the superintendent is chosen by popular election a definite salary must be set by law and provision must be made to prevent any change in that salary during the term for which he is elected. Such provisions, however, necessarily limit the choice of a man for the highest educational office in the State.

In view of these facts the survey staff recommends that the State Constitution and the State Law be amended so as to provide for the appointment of the State Superintendent of Public Instruction by the State Board of Education, his term of office to be five years, his salary to be determined by that board without restriction, his selection to be determined without reference to place of residence, and his relation to the board to be that of its administrative and executive officer.

iii.—THE STATE DEPARTMENT OF EDUCATION

The State Department of Education¹ in Virginia at present comprises the following staff and divisions:

1. The Superintendent of Public Instruction.
 2. First clerk, acting as the Secretary of the State Board of Education.
 3. Second clerk, acting as auditor-statistician and financial agent.
 4. Assistant clerk.
 5. Supervisor of teacher certification.
 6. Supervisor of high schools.
 7. Supervisor of Agricultural Schools.²
 8. Supervisor of Trade and Industrial Education.²
 9. Supervisor of Home Economics Education (part time).²
 10. Supervisor of Graded Schools.
 11. Supervisor of rural white schools.³
 12. Supervisor of colored schools.³
- Five stenographers.
One messenger.

¹ Using the term here in its popular and narrower sense as excluding the State Board of Education.

² Salaries and expenses paid in part by the Federal Board of Vocational Education. (Smith-Hughes).

³ Salaries and expenses paid in part by the General Education Board.

Such provision compares very favorably with provisions in other States. Nevertheless, a few recommendations are important.

(1). The conditions of school buildings shown in Chapter XVII suggest the necessity of a supervisor of school buildings and grounds to devote his entire time to their supervision.

(2). The condition of school hygiene, physical education, and the need for medical inspection suggest the imperative need of a full time supervisor either entirely under the direction of the State Board of Education or in co-operation with the State Board of Health. (Cf. Chapter XII).

(3). There is need of a supervisor qualified to deal with the problems of educational tests and measurements and with the problems of exceptional children.

(4). The Second Auditor of Virginia, elected by the General Assembly, and entirely independent of the State Board of Education and the State Department of Education, has virtually no duties other than accounting for the school funds and keeps a set of books practically identical with the financial officer of the State Department of Education. Some way should be found to eliminate the waste caused by this duplication of effort.

(5). One of the greatest difficulties encountered in the management of school finance is that involved in the handling of funds by local officials. Great confusion is often involved and sometimes actual loss is incurred through a lack of uniformity in accounting through change in officials, and occasionally through the inability of local officers to manage school funds. The appointment in the State Department of Education of a traveling auditor would lead to much greater efficiency and in the long run would probably result in an actual saving of money.

RECOMMENDATIONS

1. That the State Constitution and the State law be so amended as to provide for a State Board of Education, consisting of seven members appointed by the Governor, by and with the consent of the Senate, one member of that board to be

appointed each year to serve for seven years—members of the board to receive actual expenses for travel, etc. incurred in the service of the board and a per diem allowance of eight dollars. That board should be essentially a lay board.

2. That the State Board thus constituted exercise the same duties and powers as at present except: (a) that it assume the duties of the present State Normal School Board; (b) that it cease to appoint division superintendents, confining its powers and duties to their approval or to the maintenance of a list of those eligible to be division superintendents; (c) that it shall select the State Superintendent of Public Instruction; (d) that it be limited in its power to initiate purely professional measures or interfere directly with the administration of purely professional and technical matters.

3. That the State Constitution and the State law be so amended as to provide for the appointment of the State Superintendent of Public Instruction by the State Board of Education.

4. That in the selection of the State Superintendent the State Board be unrestricted by requirements as to place of residence or the amount of salary to be paid.

5. That the State Superintendent be a non-voting attendant at all meetings of the Board of Education (except those involving his own tenure of office or salary) with power to initiate business and to discuss all matters, but not to vote thereon.

6. That the functions of the State Board be essentially legislative and judicial and that the functions of the superintendent be essentially administrative and executive.

7. That the State Department of Education be enlarged to include (a) a supervisor of buildings; (b) a supervisor of school hygiene, physical education, and medical inspection; (c) a supervisor of educational tests and measurement and of the education of exceptional children; (d) a traveling auditor.

CHAPTER XIX

SCHOOL ADMINISTRATION IN COUNTY AND DISTRICT

VIRGINIA belongs to that relatively small group of States which provides for school administration in non-city districts through a combination of county and district units of organization, and through administrative agencies, some of which represent the entire county, while others represent different districts of the county. Their complex interrelations in Virginia will appear in the following outline of the functions which appertain to: (i) the School Trustee Electoral Board; (ii) the District Boards of School Trustees; (iii) the County School Board; (iv) the Division Superintendent of Schools.

i.—THE SCHOOL TRUSTEE ELECTORAL BOARD

The central agency of county school administration in Virginia is the School Trustee Electoral Board, composed of (1) the division superintendent (appointed by the State Board of Education and ex-officio clerk of the Electoral Board), (2) the Commonwealth's Attorney (elected by the people), (3) one resident voter of the county (appointed by the judge of the Circuit Court). All district agencies for school administration in the county are subordinate to this board.

It is to be noted that this board is composed of three men, only one of whom (the Commonwealth's Attorney) is directly responsible to the people of the county, and that his responsibility is primarily and principally for duties other than those of school administration. Further, all district board members are appointed by this electoral board, so that the participation of citizens in the county's school administration is practically nil.¹ Finally it is to be noted that the chief school officer of the county owes no legal responsibility to the other school authori-

¹ When towns of 500 inhabitants constitute a single school district the town council has the power to appoint the school trustees. (Revised Code, Section 668.)

ties or to the people except in the most indirect fashion through the State Board of Education, which itself is responsible to the people of the State only in the most partial and indirect way.

The duties of the County Trustee Electoral Board are few, but its power therein is absolute. Its primary duty (and its principal reason for existence) is the appointment of district school trustees. Having performed that duty by the appointment annually of one trustee for each school district in the county it has nothing else to do unless there arises some appeal from the decision of a district school board. When such an appeal is made the electoral board proceeds to perform its second (its only other important) duty and sits as a judicial tribunal to pass on the acts of its own appointees. Its decisions on such appeals according to law are final. The absurdity of such a procedure is increased by the fact that the acts of the district trustees have in many cases been the result of carrying out policies recommended by the division superintendent, himself a member of the court of appeals but owing no responsibility to it.

As a matter of fact the County Trustee Electoral Boards exist primarily as one set of the wheels within wheels involved in the highly centralized school organization of the State and were created largely to make possible the present system of county-district administration. Below is recommended a reorganization of county administration which would render unnecessary those extra hundred boards and thus eliminate two hundred superfluous school authorities.

ii.—DISTRICT BOARDS OF SCHOOL TRUSTEES

The State Constitution provides that each magisterial district in a county shall constitute a separate school district, unless otherwise provided by law, and that in each school district three school trustees shall be appointed. The State law (section 668 of the Revised Code) provides that each magisterial district shall constitute a separate school district unless the State Board of Education shall provide for redistricting any county where the interests of the schools require it, but that a town of more than five hundred inhabitants may, if the council so elect, be consti-

tuted a single school district. It also makes elaborate provision for optional sub-districts—which provision, however, heretofore has served no other purpose than to occupy about nine pages of the code.

As a general rule school districts are co-extensive with the magisterial districts, the number ranging from two districts to ten districts to a county, as indicated in Table 113. Thus for schools in the counties of the State there are 498 district boards and 100 trustee electoral boards, or a total (not including county school boards) of 598 separate boards, engaging the services of 1494 district trustees and 200 trustee electoral board members (exclusive of division superintendents), or a total of 1694 school board members.

Such a multiplicity of school boards serves only to complicate school administration, to produce a wide variety of educational conditions, and to cause gross inequalities of educational opportunity in different parts of the same county.

At present the district boards as a group operate very ineffectively. They constitute the only local agencies of administration and are legally invested with many important duties and powers, some of which are carefully exercised while others are conveniently neglected, in spite of legal provision for severe penalties in some cases. For instance, a school trustee who employs a teacher without contract or a proper certificate is personally liable to refund any public money paid to that teacher. Yet division superintendents report that such provisions are violated to a greater or less extent in twenty-five counties. Again, the law provides that district school boards shall meet regularly at fixed intervals. Division superintendents report that such provision is commonly not observed in sixty-one counties. Further, the law provides that there shall be recorded in the minutes the authorization for payment of all bills and that on each warrant shall be indicated the purpose for which it is issued. Division superintendents report those provisions as more or less commonly ignored in fifty-six counties. Other important legal provisions are met or neglected as indicated in Table 114.

In the reorganization of county administration recommended in a later part of this chapter all district school boards are

eliminated, the total number of non-city school boards reduced from nearly seven hundred to one hundred, their membership reduced from nearly eighteen hundred to about five hundred, and their efficiency greatly increased.

iii.—THE COUNTY SCHOOL BOARD

The State law provides that all of the district school trustees of a county acting together shall constitute a body corporate known as the County School Board, of which the division superintendent is ex-officio chairman. As shown by the figures in Table 113 the size of a county school board varies from six to thirty members, exclusive of the division superintendent.

Modern educational standards and the best practice would lead one to the expectation of finding in these County School Boards the principal agencies for guiding school administration in their respective counties. As far as any legal provisions are concerned, quite the contrary is the case, the only important duties and powers legally invested in such boards being those which deal with school finance.

In the absence of any legal provision and to some extent in the absence of legal authority therefor many progressive county school boards have made a beginning of determining educational policies for their entire counties, e.g., with respect to length of the school term, qualifications of teachers, a salary scale for teachers, the purchase of supplies for the schools in various districts of the counties.

In spite of such development it must be recognized that, as at present organized and as now limited in its legal powers, the county school board is an ineffective agency of county school administration, since its control even of school finance is limited to State and county funds and cannot prevent gross inequalities of school support in various parts of the same county.

The proper place and functions of a County School Board are outlined in the reorganization recommended in a later part of this chapter.

iv.—THE DIVISION SUPERINTENDENT OF SCHOOLS

By constitutional provisions (Section 132) the State Board of Education may, in its discretion, divide the State into appropriate school divisions (comprising one or more counties or

cities), and is required to appoint for each such division a superintendent of schools. In accordance with those constitutional provisions and in accordance with the provisions of the law (Revised Code Section 604) the State board has created eighty-six non-city division and twenty city divisions. Of the non-city divisions, seventy-three are constituted of single counties each, twelve are composed each of two adjacent counties, and one division includes three counties. For each of those divisions is provided a superintendent of schools.

(a). *The Appointment of Superintendents:* All division superintendents (non-city and city) are appointed by the State Board of Education according to constitutional provisions, neither the school authorities of counties, districts, and cities, nor the people thereof having any legal authority, direct or indirect, in their selection and appointment.

This method of selecting division superintendents is thoroughly contrary to accepted standards and the best practice. For the most part objections are best considered in connection with the reorganization recommended in section v. of this chapter. Here, however, may be considered one very important objection.

Division superintendents are appointed "within thirty days before April first" in the same year in which the primaries are held for the election of the State Superintendent of Public Instruction, the Attorney-General, and the governor. Those members of the State Board entitled to vote on the election of division superintendents are three institutional representatives and three ex-officio members—the three State officers mentioned. The encouragement thus offered to the ex-officio members of the board to straighten their political fences in any county or city in the State is unsurpassed, as far as educational agencies are concerned, in any State. The opportunities have not been entirely overlooked in Virginia. The fact is that the presence on the board of politically elected ex-officio members and their participation in the selection of division superintendents makes the injection of political influence inevitable. Present legal provisions are thoroughly vicious.

(b). *Qualifications of Division Superintendents:* The State law and regulations of the State Board of Education set mini-

minimum qualifications for eligibility to the office of division superintendent. Reduced to their lowest terms those requirements mean that any man is eligible to that office who: (1) has had three years of experience as a teacher, supervisor, or principal, and who holds at least a "First-Grade" certificate¹; or (2) has had at least two years of normal school or college training, including at least three hours of professional study of education each week throughout each session, but with or without any experience whatever in teaching; or (3) is a college graduate, but with or without any experience in teaching; or (4) is already a division superintendent. The low character of those requirements is equalled only by the low salaries paid in most non-city divisions.

The low character of the minimum qualifications does not mean that in all cases the men actually appointed are not qualified for their tasks. In most divisions of the State are found capable superintendents and in general the academic education of division superintendents is far above the minimum requirements set, as is shown by the figures presented in Table 115. Nevertheless it is true: (a) that present requirements set a very low standard in general; (b) that they minimize the importance of professional training and actual school experience; and (c) that they permit the appointment or continuance in office of men thoroughly unqualified for the position of division superintendent. The fact is that the State, as a whole, has only recently begun to recognize that the division superintendent need be anything else than a good business man, capable of administering the material and business phases of school management.

(c). *Duties and Powers of the Division Superintendent:* The division superintendent is an officer of the State Board of Education. His duties and powers are prescribed by that board and he is responsible to it for general supervision of those phases of school administration under charge of the State Board. He is ex-officio a member and clerk of the School Trustee Electoral Board and is also ex-officio president of the County School Board, but otherwise he owes no direct responsibility to county

¹ A "First-Grade" Certificate is really about fifth or sixth grade, being next to the lowest of seven grades of certificates. Cf. Chapter IX.

or district authorities except as their participation in the payment of his salary may affect his actions. In his relations to the district trustees he can act solely as an advisor where the law or regulations of the State Board are not concerned. Except in such cases there is no way in which unified action can be ensured in school administration since there is no direct responsibility on the part of the superintendent to the various county or district boards nor is there any direct responsibility on the part of those boards to the superintendent. This division of uncorrelated authority and responsibility is one of the greatest factors interfering with education in the counties of Virginia.

(d). *Salaries of Division Superintendents:* Section 626 of the Revised Code provides that the division superintendent shall receive out of the State school fund:

" forty dollars for every thousand of population under his jurisdiction for the first ten thousand; twenty-five dollars for every thousand in excess of ten up to, and including, thirty thousand; and fifteen dollars for every thousand in excess of thirty thousand, rejecting in each case fractions of less than five hundred, provided, that the pay of a superintendent from funds in the State treasury shall not, in any case, be less than four hundred and fifty dollars a year.

The board of supervisors of any county, or the council of any city, may, out of any surplus of any funds in the treasury or the county or city school board may, out of local school funds, supplement the salary of the superintendent of schools provided that the salary of any such division superintendent shall not be increased or diminished during his term of office."

Table 116 presents figures showing for 1918-19 the salaries received by division superintendents in counties. Those figures show that twelve division superintendents receive each an annual salary of less than \$1,000 and that more than one-half receive each an annual salary of less than \$1,500.

Three criticisms are called for:

(1). The salaries paid are so low that the State cannot expect to secure and retain men qualified to perform the duties which are or should be expected. The smallest city, with administrative duties infinitely simpler, would never think of engaging a superintendent at a salary as low as the salaries paid to three fourths of the division superintendents in counties. The salary of any division superintendent should be set at a minimum of \$2,000.

(2). The method of determining the State's share in the salary of superintendents is certainly ill suited to county conditions, where the size of the division, the distribution of the population and the distribution of schools are factors frequently far more important than the size of population in determining the work of the superintendent and the qualifications needed. A better method would be to set the State's share in the superintendent's salary at a definite proportion of the amount paid, regardless of population, but to set a minimum for the total salary and a maximum for the State's contribution.

(3). The legal provision preventing any increase in the superintendent's salary during his term of office makes it impossible for any of the authorities concerned to retain the services of a capable man who may be invited to accept another position, however much his services may be valued. This restriction serves no useful purpose and sometimes operates as a hindrance to effective school administration. It should be eliminated.

V.—REORGANIZATION RECOMMENDED

In the preceding section of this chapter an attempt has been made very briefly to outline the character of the present agencies for educational administration in the counties and county districts of Virginia. In the judgment of the Survey Staff the present plan is very defective and demands radical modification. In this section (a) the principal objections to the present plan are summarized, and (b) plans for reorganization are recommended.

(a). *Summary of Objections to the present plan:* The principal defects in the present organization and the principal reasons for the reorganization recommended are summarized below:

(1). The present plan involves a very complex combination of different boards and different officials which practically precludes any unified efforts to administer the schools effectively.

(2). Closely related to this is the fact that duties and powers, responsibilities and authorities, are so divided and distributed that the present plan renders it practically impossible to locate them. As a whole the School Trustee Electoral Board owes direct responsibility to no one in particular, to no branch of the

government, nor to the people. The school trustees owe direct responsibility to the electoral board. The superintendent owes direct responsibility to the State Board of Education. The county supervisor levies the school tax and is directly responsible to the people. In the maze of interrelations involved it is totally impossible to locate responsibility.

(3). By the present plan the people of any district or county are almost entirely excluded from direct or indirect participation in the control of their schools. Their only contact with the administration of the schools is found in the election of the State Superintendent, the Governor, and the Attorney-General as ex-officio members of the State Board, in the election of the County Commonwealth's Attorney, and in the election of the county tax officers.

(4). The result of this non-participation has been in many counties and in many districts a general apathy, ignorance, and neglect, as far as the schools are concerned. This would be the case in much greater degree if it were not for the very commendable activities of the non-official Co-operative Educational Association.

(5). The appointment of the division superintendent by the State Board of Education and his primary responsibility to it renders impossible the ensurance of effective co-operation between him and the local school authorities.

(6). The fact that the district trustees and the superintendents who share the management of the schools are not directly responsible to the people places them at a disadvantage with respect to local school support, as compared with the county supervisors who levy the tax and are directly responsible to the people.

(b). *Reorganization Recommended:* For the purpose of simplifying county school administration, of making it more democratic, and of rendering it more efficient, the following reorganization is recommended as in accord with the best standards and attested experience in other states.

(1). The present School Trustee Electoral Boards, District Boards of School Trustees, and County School Boards should be abolished. In their stead should be created for each county a County School Board consisting of five members elected by the

voters of the entire county and from the county at large, but not more than two from any one magisterial district. One member should be elected each year to serve for a term of five years. He should be elected at a special school election which should not coincide with the election of political officers.

(2). This reorganized County School Board should be invested with all powers and duties necessary for the proper administration of education in its jurisdiction, subject only to the State law and to regulations of the State Board of Education. It should be given full authority to manage the schools in its best judgment and be held solely responsible to the State and to the people of the county for their proper management.

(3). To this end the County School Board should have the authority to select and appoint its chief administrative and executive officer—the division superintendent of schools.¹ Its appointment of superintendent, however, should be safeguarded by restriction to selection from a list of eligible candidates prepared by the State Board of Education, or, subject to its approval. Subject to such restriction and to requirements for minimum salary it should be authorized to select a superintendent regardless of place of residence and at such salary as it may determine.

(4). The County School Board should confine its functions to those of a legislative and judicial character, delegating to the superintendent functions of a managerial or executive nature involving professional and expert knowledge, experience, or judgment. In particular it should delegate to him the initiative in and management of such matters as the courses of study, the selection of text-books, the nomination of teachers and their assignment to schools or grades. The superintendent should be present at all meetings of the County School Board, with power to participate in the deliberation of all matters not involving directly his own tenure and salary, but without power to vote thereon. No teacher or other employee of the board should be appointed, promoted, transferred, or removed without his nomination, unless under the most exceptional circumstances. All such employees should be under his immediate authority.

¹ Nothing in this recommendation need operate to prevent a division superintendent of schools to act for two or more counties.

(5). The County School Board should have final authority, within legal limitations, to determine the amount of money necessary for the proper maintenance of the schools of the county, to fix the amount of money which must be raised by a uniform school tax on all property in the county taxable for school purposes, and to require the County Supervisors to levy a tax which will produce the amount of county funds necessary for current maintenance and support of schools in the entire county. It should distribute available State and county funds so as best to equalize educational opportunities for all children in all parts of the county.

The present organization of county and district school administration is unsatisfactory as judged by any accepted standards. The reorganization suggested is in accord with the best educational theory and practice. There is little doubt that it would result as successfully in Virginia as it has in States in which county school administration has been thus reorganized.

RECOMMENDATIONS

1. That the State Constitution and the State Laws be so amended as to make possible the reorganization of county and district school administration recommended in this chapter as above and below outlined.

2. That all school district lines be eliminated in school administration.

3. That the present School Trustee Electoral Boards, District Boards of School Trustees, and County School Boards be abolished.

4. That in each county of the State there be established a County School Board consisting of five members elected by the voters at large and from the county at large, but not more than two from any one magisterial district, one member to be elected each year to serve for five years—vacancies for any unexpired term to be filled through appointment by the circuit court judge.

5. That the County School Board be given legal authority, within such limitations as may be wise, to determine the amount

of money necessary for the proper maintenance and support of schools in the county, to fix the amount of money to be raised by county taxation for school purposes, and to require the County Supervisors to levy a tax which will produce the amount of money necessary.

6. That the County School Board be authorized to select and appoint a division superintendent of schools from a list of eligibles determined by the State Board of Education, or subject to its recorded approval before appointment.

7. That the County School Board be empowered to appoint a superintendent without restriction except as indicated in recommendation 6 above and by minimum salary requirements.

8. That the State Board of Education establish such minimum requirements for eligibility to the position of division superintendent as will exclude all candidates: (a) not having had at least three years of experience in teaching, school supervision, or school administration; *and* (b) not having had at least two years of education in normal school, or college; *and* (c) not manifesting qualifications at least equivalent to those required for the holder of the present Normal Professional Certificate.

9. That the minimum salary of a division superintendent be set at \$2,000 per annum.

10. That the County School Board provide adequate office room and adequate clerical assistance for the use of the superintendent of schools, preferably at the county court house or in a proper place conveniently located for purposes of school administration.

11. That all teachers and other regular employees of the County School Board be appointed only on the written nomination and recommendation of the division superintendent and that such teachers and employees be subject to his immediate authority.

CHAPTER XX

CITY SCHOOL ADMINISTRATION

THE administration of education in the cities of Virginia involves three principal local agencies—the City Council, the City School Board, and the City Superintendent of Schools.

i.—THE CITY COUNCIL

The City Council participates in the administration of the city schools in two fundamentally important ways: (1) it appoints the members of the City School Board; (2) it passes on the budget estimates of that board, determines the amount of money to be appropriated, and levies the tax or makes appropriations therefor. Thus final control of all school matters, not determined by the State constitution, by State Law, by the State Board of Education, or by the city charter, rests in the hands of the City Council.

Selection of members of the City School Board by the City Council is an antiquated method long since abandoned in most parts of the country. In almost every progressive city in the country the members of the school board are now either elected by the people or appointed by the mayor, with practice much in favor of the former method. The principal reasons for that change are given below.

1. Nothing is gained and much is lost by making responsibility for the administration of the schools pass to the people from one board through a second board chosen for a multitude of other duties.

2. The election and activities of the City Council involve a host of political influences which are in part projected into the administration of education wherever the council appoints the members of the school board. Not infrequently appointments to that board are more or less affected by political obligations incurred by members of the City Council.

3. The City Council is concerned almost exclusively with city affairs, while the city schools are in no small measure a State concern as well as city concern.

4. Below it is recommended that the school board have the power to fix the amount of money "needed for the proper maintenance and growth of the public schools of the city" and to levy the necessary tax. This cannot be done unless the board receives its power direct from the people and is directly responsible to them.

The Survey Staff recommends the abandonment of the present practice of selecting members of the school board through appointment by the city council, and recommends election of the school board by the people.

The relation of the city council to school finance creates problems of far-reaching importance.

By law the city school board is required once each year, and oftener if deemed necessary, to submit to the City Council a classified estimate of funds needed. Whether or not such funds will be provided is dependent entirely on the judgment of the City Council. Ordinarily its judgment is not determined by "what funds will be needed for the proper maintenance and growth of the public schools of the city"¹ but according to the strength or weakness of competing projects, the generosity or parsimony of the council, or by political factors not germane to school administration. To obviate this objectionable difficulty it is recommended below that the City School Board be invested with the authority and power to fix the school tax or determine the amount of appropriations necessary for the proper maintenance of the city schools, subject only to such legal limitations as may be wise.

ii.—THE CITY SCHOOL BOARD

Section 780 of the Revised Code provides that: "The council of each city shall appoint three trustees for each school district in such city, whose term of office shall be three years, respectively, and one of whom shall be appointed annually." The "school district" is usually co-terminous with the city ward or

¹ Revised Code, section 782.

comprehends two or more city wards. Thus two cities of the State have each one school district and a school board of three members, six cities have each two districts and a school board of six members, eight cities have each three districts and a school board of nine members, and three cities have each four districts and a school board of twelve members.

The selection of school-board members by districts or wards was formerly a common procedure in many parts of the country. Experience, however, has shown that it was very undesirable and the practice has long been abandoned in the great majority of cities throughout the country in favor of the selection of board members for the city at large.

The principal reasons for that change are those outlined below.

1. The city maintains its school system for the benefit of the whole city. Its board for school administration should not be organized on the assumption that members are to be chosen to represent the interests of wards or districts separated mainly for political functions.

2. Where board members are selected to represent wards or districts encouragement is given to the injection of special interests and petty ward politics into school administration. This is particularly true where school board members are appointed by the City Council.

3. Not infrequently district or ward representation on the school board leads to either or both of two evils: (a) the prevention or delay of much needed improvements in one part of the city through sectional rivalry or selfishness; (b) political log-rolling or reciprocal favors which waste school funds. Instances of both are not unfamiliar to citizens of Virginia.

The Survey Staff recommends for the cities of Virginia the election of school board members from the city at large and by the electors at large.

A second matter calling for attention in the constitution of city school boards in Virginia is the number of members. At present the number of members varies from three to twelve, the majority of cities (fourteen out of nineteen) having boards of six or nine members each. For most cities a board of three

members is probably too small, two members being able to block or force any measure. On the other hand a board of twelve members is larger than necessary and almost always tends to result in the distribution of duties among several standing committees and in an undesirable dissipation of responsibility. Finally, any board having an even number of members is open to objections on the ground that important action may be delayed or prevented by a tie vote.

The Survey Staff recommends that in cities of less than 25,000 population the school board be composed of five members, one member to be elected each year to serve for five years, and that in cities of more than 25,000 population the school board be composed of five, seven, or nine members.

A final matter to be noted here is the fact that city school boards in Virginia tend to operate largely through several standing committees. This is a common but thoroughly pernicious practice in most cities of the country, the principal objections being those outlined below.

1. Where standing committees are found there is an apparently inevitable tendency to delegate to minority committees important duties and powers which should receive the careful attention of the entire board.

2. This ordinarily results in a tendency toward more or less perfunctory acquiescence by the board to recommendations and acts carefully considered by a minority of members only.

3. Board meetings should be open to the public. Committee meetings are usually of a somewhat informal character and may be held behind closed doors. Thus personal and political influence can affect the action of committees much more easily than those of the whole board in public meeting.

4. The appointment of standing committees is commonly left to the chairman of the board who may assign members in such a way as to serve his own ends.

5. A common result of the maintenance of standing committees is the exposure of individual members to influences and criticisms which should be applied to the board as a whole.

6. Standing committees or their individual members frequently assume powers which should belong only to the board

as a whole or to the superintendent. Particularly dangerous here is the tendency for committees or committee members to interfere with the details of administration or with the executive and professional duties of the superintendent.

For these reasons the city school boards of Virginia should reform their practice of organizing the board work through standing committees.

iii.—THE CITY SCHOOL SUPERINTENDENT

The city school superintendent in Virginia is selected in the same way and for the same term (four years) as other (county) division superintendents, i.e., by the State Board of Education. His salary also is determined primarily by the same law and is based on population factors, but he may receive additional remuneration from the city council, provided his salary is not changed during the term for which he has been elected.

In the appointment of city superintendents by the State Board of Education Virginia employs a unique method and in general the provisions above outlined are contrary to approved principles and common practice, the principal objections being those outlined below.

1. Appointed by the State Board of Education and subject to the local board in the majority of his duties, the city superintendent finds himself in a position of divided responsibility, owing his election and tenure to the State Board, a part of his salary to the City Council, and support in the school administration to the city school board. Under such conditions the most efficient school administration is impossible.

2. Elected by the State Board of Education, not necessarily with the endorsement of the city board and occasionally in the face of considerable local opposition, the superintendent is handicapped in his work from the start.

3. The lack of a definite division of authority and responsibility between the locally chosen board and the externally appointed superintendent easily leads to misunderstanding and prevents the definite location of responsibility.

4. Local boards may be chosen on the basis of a definite educational program, the accomplishment of which may be

delayed or blocked by a superintendent over whose selection and tenure they have no direct control and over whose salary they have but partial control.

5. Under present conditions it is legally impossible for a city board to increase the salary of a school superintendent during his term of office. Hence, on several occasions, the city and the state have been at a very definite disadvantage when good superintendents are attracted elsewhere and neither state nor city authorities have the legal power to meet the standards set elsewhere.

The Survey Staff recommends the abandonment of the present practice and the appointment of the city superintendent by the city school board for such salary as that board may determine.

RECOMMENDATIONS

1. That the State constitution and the State law be so amended as to provide for the selection of boards of education in cities by popular election.

2. That in each city of less than 25,000 population the city school board be composed of five members elected from the city at large, one member to be elected each year to serve for five years.

3. That in each city of more than 25,000 population the city school board be composed of five, seven, or nine members to be elected from the city at large, one, two, or three members to be elected each year to serve for three, five, or seven years, according to the decision of the city council.

4. That the powers and duties of such city school boards include all such powers and duties at present legally assigned to them and in addition all duties and powers over school affairs now assigned to the city councils, including the authority, within legal limits, to fix the school tax or to require the appropriation necessary for "the maintenance and growth of the public schools."

5. That the State constitution and the State law be so amended as to provide for the appointment of the city superin-

tendent by the city school board, subject to the approval of, or from a list of eligibles prepared by, the State Board of Education.

6. That city school boards abandon the practice of working through numerous standing committees.

7. That the city school board confine its activities to legislative and judicial functions, leaving the professional and managerial functions of school administration to its executive officer, the school superintendent.

8. That the superintendent have the power to be present at all meetings of the City School Board and to participate in all activities of the Board except those involving his own tenure or salary, but without power to vote.

9. That legal provision be made for the appointment of teachers, supervisors, principals, janitors and all other school employees, by the city board only on the nomination and recommendation of the superintendent, and that all such employees be subject to his immediate authority.

CHAPTER XXI

FINANCIAL SUPPORT

DOES Virginia invest enough money in her public schools to provide a satisfactory education for her citizens? How much money is needed annually? Does Virginia employ proper methods in raising school funds? Does she employ proper methods in distributing and expending them? What changes are desirable to secure better results? These are fundamentally important questions which must be considered in this concluding chapter.

i.—DOES VIRGINIA PROVIDE SUFFICIENT FUNDS FOR SCHOOL SUPPORT

According to the balance sheet for the school year ending June 30, 1918 the gross receipts from all sources for school purposes were \$10,198,168 and the gross disbursements were \$9,155,363. Subtracting from the gross disbursements (1) increments of the permanent Literary Fund (\$161,632)¹, (2) delinquent taxes (\$87,454), and (3) commissions paid to county and city treasurers for collecting and disbursing school taxes (\$159,103), the net expenditures for actual school use are reduced to \$8,747,074. Detailed figures are presented in Tables 117 and 118.

Are such funds sufficient to provide satisfactory education in Virginia?

No problem of education is more difficult than that involving the question of the amount of money needed to provide adequate school support? Determining factors vary widely in various parts of the country and in various parts of any one State. In Table 119 are presented the latest available figures purporting to show the cost of education in various parts of the country in 1916. Undoubtedly those figures are open to a wide margin of error. In so far, however, as they show the

¹ Accredited to gross disbursements but not available for expenditures.

facts of the case, they indicate that at that time Virginia occupied among the States of the Union thirty-ninth place with respect to the amount expended per capita of the total population, thirty-ninth place with respect to the expenditure per capita of the school population, and forty-first place with respect to the expenditure per pupil in average daily attendance. At that time the expenditure per capita of the total population was for Virginia \$3.33, for the country \$6.28; the expenditure per capita of the school population was for Virginia \$10.97, for the country \$23.87; and the expenditure per pupil in average daily attendance was for Virginia \$21.53, for the country \$41.72. Obviously, in so far as those figures represent the facts, Virginia in 1916 was far behind the majority of States in expenditure for school support. Since that time increased support has been provided in Virginia, but also in other States. There is no reason to believe that the relative position of Virginia has changed materially within the past three years, in spite of the fact that the State's expenditure per pupil in average daily attendance has increased to \$27.49.

For evidence of the inadequacy of school support in Virginia one does not need to search for external proof. An examination of conditions in various parts of the State itself shows that the schools are inadequately supported. Through lack of sufficient funds the average length of the school term is kept far below standard (the average being 7.3 months),¹ the pay of teachers is so low that teachers reasonably educated and properly trained cannot be secured,² proper supervision in counties cannot be provided,³ buildings and equipment cannot be properly provided and cared for,⁴ and many important phases of education are neglected.⁵

A fair index of the present situation is found in the figures presented in Table 120. Those figures show that in some counties the expenditures for instruction per white pupil enrolled run as low as six dollars or less, that in nearly one-fourth of the counties it is less than ten dollars, and that for all counties the

¹ See Chapter II.

² See Chapters VII-IX.

³ See Chapter XIV

⁴ See Chapter XVII

⁵ See Chapters V, X, XI, XII.

median of such expenditure is only \$12.76. For colored pupils such expenditures run as low as \$1.95 in Accomac County, are less than four dollars in two-fifths of the counties, and give a median of \$4.19 for all counties. Without question at such a rate effective education is impossible.

ii. HOW MUCH MONEY IS NEEDED

Unfortunately there is no recognized formula by which the amount of money necessary for adequate school support can be determined. Current practice throughout the country, however, affords some empirical basis for estimating reasonable minima standards.

The principal item in school expenditures is that of teachers' salaries, in 1917-18 involving between three-fifths and two-thirds of all school expenditures in Virginia, and for various States ranging in 1915-16 from 47 to 80 per cent of all school expenditures, with a median at about 58 per cent and a national average of 57 per cent. In 1915-16 the average monthly salary of teachers throughout the country was \$70.21. At present it is probably not less than \$75. per month. At the latter figure with a nine months standard term the average annual salary of teachers would be \$675.

If Virginia were to provide a uniform school term of nine months and were to meet the national *average* for monthly salaries with the staff of approximately 14,000 teachers employed in 1917-18 the funds to be provided would amount to \$9,450,000—more than the net expenditures for all school purposes in 1917-18. If the State were to meet the same standards with the number of teachers which should have been employed (approximately 15,000) the amount needed would be about \$10,125,000. In Table 121 are presented figures showing the amount needed for instructional purposes only, according to the average monthly salary of teachers and according to the length of the school term. In the judgment of the Survey Staff the *minimum* amount of money needed for instructional purposes only in Virginia is that amount which would provide an average annual salary of \$675, a school term of nine months, and one teacher for every 30 or 35 pupils enrolled. In round numbers that would mean at present a minimum of approximately \$10,000,000.

Much the same results are obtained if we consider the cost

of instruction per pupil enrolled or per pupil in average daily attendance. In 1915-16 the average annual expenditure for teachers' salaries per pupil in average daily attendance was \$23.75 for the country—in the States with best provision for education ranging as high as \$40.00 or above. By now the national average is certainly above \$25.—probably nearer \$30. If Virginia had reached that average in 1917-18 she would have required approximately \$8,000,000 for teachers' salaries alone, the difference between this figure and the figure given above being due in large part to poor attendance in Virginia. At the rate of \$30. per pupil the amount needed would have been \$9,520,680.¹ If at either rate attendance were anywhere near its proper status the amount would be somewhere between \$9,000,000 and \$11,000,000. In Table 122 are presented figures showing the amounts needed for instructional costs in Virginia, according to the rate of expenditure per pupil in average daily attendance.

On the basis of these considerations the Survey Staff estimates the amount of money needed annually as a *minimum* for instructional purposes in Virginia at present at between \$9,000,000 and \$10,000,000.

It should be clear that the funds needed for teachers' salaries—the largest and most important item in school support—ought always to be determined with reference to the variable factor of the number of children to be taught and to the *minimum* quality of instruction to be provided. The *minimum* quality of instruction which ought to be provided cannot be secured at a cost of less than twenty-five dollars per pupil in average daily attendance, if nine school months of education are to be provided. It is recommended, therefore, that the amount to be raised and expended for *instructional purposes* in Virginia be not less than twenty-five dollars for every pupil in average daily attendance, or, if a uniform school term of not less than nine months (180 actual school days) is not required throughout the State, that the amount be set at not less than fifteen cents² per unit of the aggregate days' attendance.

¹ The citizen of Virginia who considers such a figure excessively high may be enlightened by enquiring the cost of tuition in the nearest private school.

² The national average was 14.82 cents in 1915-16. It is probably nearer eighteen cents now.

School expenditures other than those for teachers' salaries are in general so dependent on factors which vary in irregular fashion that it is practically impossible to lay down any uniform principle for their determination. Some may be fairly constant; others (e.g., expenditures for outlay, are exceedingly variable and practically defy prophesy. These facts, however, are clear from the investigation made: (1) that expenditures for general control in Virginia must be increased to provide adequately for well qualified county superintendents, supervisors, medical inspectors, and school nurses;¹ (2) that funds for the operation and maintenance of the school plants must be greatly increased; (3) that greatly increased funds must be made available for permanent outlay in most parts of the State.^a

All in all it is probable that the present approximate ratio of three to two teachers' salaries and other school expenditures will have to be maintained if the schools of Virginia are to perform their task at all properly.

Summarizing this consideration of needed funds we may make the following rough estimates of the minima funds required on the basis of present enrollments:

Expenditure for instruction about.....	\$10,000,000
Other expenditures about.....	6,666,000
Total funds needed.....	\$16,666,000

Nothing less than that amount can provide the funds at present needed to raise education in Virginia to the national average. As the school enrolment increases and as new needs come those minima must be increased correspondingly. The amount of funds needed in any school year must be determined, not on an absolute basis, but on a relative basis determined by the number of children to be educated and the quality of instruction to be provided. A method for determining the annual amount needed is outlined in the latter part of this chapter.

iii.—ARE SCHOOL FUNDS PROPERLY RAISED IN VIRGINIA

School support is provided in Virginia (a) through State funds, and (b) through local (county, district, and city) funds. In 1917-18 State funds amounted in the gross to \$3,010,485

¹ See Chapters XIV, XII, XIX.
See Chapter XVII.

or 29.5 per cent of the total, and local funds amounted in the gross to \$7,187,168, or 70.5 per cent of the total. Of the revenues available for actual school expenditures State funds amounted to \$2,584,792 (27.1 per cent) and local funds amounted to \$6,941,125 (72.9 per cent). Thus it is seen that the State's share in school support in Virginia is somewhat less than three tenths of the total. Figures showing the sources from which the various revenues are derived are presented in Table 117.

(A). STATE SCHOOL FUNDS

State school funds embrace the annual interest on the permanent Literary Fund, receipts from regular and special taxes, and receipts from appropriations. Of these sources of the State revenues for schools the first two deserve consideration here.

(1). *The Literary Fund*: By constitutional provisions (sections 134, 135, 133) the Literary Fund is set apart as a permanent and perpetual fund of which the principal must be preserved intact and the annual income only be made available for school support. It consists of the proceeds of all public lands donated by Congress for school purposes, of all escheated property, of all waste and unappropriated lands, of all property accruing to the State by forfeiture, of all fines collected for offences committed against the State, and such other sums as the General Assembly may appropriate. In 1917-18 the principal of that fund was \$3,143,504, the capital increment was \$276,747, and the income was \$106,749.

By constitutional provisions the State Board of Education, subject to legal regulation, is entrusted with the care of this fund, but the General Assembly is directed to apply the annual interest. By law the General Assembly has instructed the Board of Education to invest "the capital and unappropriated income." For the most part the annual income is devoted by that board to the payment of operating expenses.¹

It is a question whether Section 135 of the constitution does not require the annual income of this fund to be distributed in the same way as the constitutional tax. If so, it should be amended so as to place the disposition of such income in the hands of the State Board of Education.

(2). *Constitutional and Special Taxes:* Section 173 of the State constitution requires the General Assembly to levy a State capitation tax of one dollar and fifty cents per annum, of which one dollar must be applied exclusively in aid of the public schools and the residue returned to the county or city, in which it was collected, to be appropriated either for school support or otherwise as the local authorities may determine. In 1917-18 the available revenue from this source was \$425,806. This tax can be counted on to supply but a very limited amount of school revenues. It is, in fact, a legacy of the time when State revenues for school support were secured in a more or less hap-hazard fashion and without due regard for establishing a logical relation between school needs and school support. As a supplementary means of raising school funds it is valuable. It cannot, of course, be considered a principal source of supply.

The principal source of State revenues for school support is the school tax provided for by section 135 of the constitution. There provision is made for an annual tax on property of not less than one nor more than five mills on the dollar to be applied to schools of the primary and grammar grades. However, by statute (Revised Code Section 2205) it is provided as follows:

All taxable real estate and all taxable tangible personal property and the tangible personal property of public service corporations (except rolling stock of corporations operating railroads by steam) and also the capital of merchants is hereby segregated and made subject to local taxation only, except that there shall be a school tax of ten cents on every one hundred dollars of the assessed value of said real estate, and tangible personal property, which tax shall be applied to the support of the public free schools for the equal benefit of all the people of the State, to be apportioned on a basis of school population.

By this "Tax Segregation" law the principal classes of assessable property are removed from the field of State taxation for school support except for the minimum one mill tax provided by the constitution. Thus the possible State revenues for school support are greatly curtailed and the clear intent of the constitution for a maximum tax limit of five mills on the dollar is practically nullified. In all probability under the present "Tax Segregation" law it would be difficult for the State to raise the amount needed if education were to be put on its proper footing. The law should be amended so as to fulfil the intent of the constitution at least.

It is to be noted that this constitutional school tax is limited

in its application to "primary and grammar schools." That is a provision inherited from the time when high schools were considered as luxuries, as grades more or less supplementing but scarcely integral parts of the public school system, and before the junior high school existed. It does not apply to modern conditions and should be eliminated from the constitution and from the law, necessary regulations concerning the use of such funds to safeguard the work of the elementary school to be made by the State Board of Education.

For the school year 1917-18 the State school tax provided gross school revenues to the amount of \$1,816,000. The constitutional limitations to the disposition of those revenues and the statutory limitations to their amount necessitated a special levy producing \$635,136 for appropriations needed.

As in all States in which little or no provision has been made for the equalization of rates of assessed valuation most State taxes in Virginia fall with very unequal burden on people in different parts of the State. In Table 123 are presented figures showing for real estate the ratio of assessed valuation to true valuation as reported by the Tax Commission in 1914. The facts there shown are too familiar to citizens of Virginia to require detailed consideration. It suffices here to emphasize two facts: (1) that the burdens of State support of education must always fall unequally on people in various parts of Virginia as long as there exist no means for equalizing rates of assessed valuation throughout the State; and (2) the funds available for school support through State taxation must always be seriously limited as long as the constitutional rate of taxation is fixed and rates of assessed valuation fall far below true values. The problem is one of general importance, but is particularly important for education because the schools alone share in the State's taxation of real estate and certain other classes of taxable property. For school support it is imperative that some means be devised to equalize the rates of assessed valuation and to raise those rates within reasonable reach of true values.

(B). LOCAL SCHOOL FUNDS

The principal source of local school revenues must always be taxation. By section 136 of the constitution the following provisions are made for local tax levies:

Each county, city, town (if the same be a separate school district) and school district is authorized to raise additional sums by a tax on property, not to exceed in the aggregate five mills on the dollar in any one year, to be apportioned and expended by the local school authorities of said counties, cities, towns and districts in establishing and maintaining such schools in their judgment the public welfare may require, provided, that such primary schools as may be established in any school year shall be maintained at least four months of that school year before any part of the fund assessed and collected may be devoted to the establishment of schools of higher grade. The boards of supervisors of the several counties, and the councils of the several cities and towns, if the same be separate school districts, shall provide for the levy and collection of such local school taxes.

This provision of the Constitution has been interpreted by the courts to mean that for any district the combined county and district tax rates cannot in the aggregate exceed five mills on the dollar of assessed valuation.

Here three facts should be noted: (1) that at present in nearly every part of the State the constitutional limit of local taxation has been reached long since and in several cases it has been exceeded (in the absence of legal protest); (2) in spite of this fact very many counties or districts are totally unable to provide sufficient local funds, even if assessed valuations were properly increased; (3) the "tax segregation" law has removed from the field of local taxation certain classes of property which were available when the constitution was adopted. In the judgment of the Survey Staff the present limitations to local taxation are very great impediments to school progress in the State. They serve no useful purpose and should be repealed at once, the amount of local funds to be raised by taxation being left to the judgment of the people of the county or city.

iv.—DOES VIRGINIA EMPLOY PROPER METHODS OF DISTRIBUTING SCHOOL FUNDS?

By constitutional provision (Section 135) the principal State school funds are apportioned to counties and cities according to the school population, the number of children of ages seven to nineteen inclusive being the basis of such apportionment. Counties apportion State funds on that basis and also commonly follow this practice in the apportionment of county funds. By law both the principal State funds and county funds

must be used exclusively for the pay of teachers, and by constitutional provision the major part of State funds may be applied solely to primary and grammar schools.

The apportionment of school funds on the basis of school population was formerly the method employed in almost every State. It is a bad practice, however, and has been abandoned in most progressive states, the principal objections to it being those indicated below.

(1). The distribution of funds on the basis of school population is grossly unfair because the number of children in the school population has no direct relation to the number of children actually enrolled in the schools or to the total amount of education provided. Thus in 1917-18 the number of children actually enrolled in the schools of Fauquier County was only 52.5 per cent of the supposed school population, while in Dickenson County 98.8 per cent of the supposed school population was enrolled. Likewise, in the same school year the average daily attendance in Fauquier County was only 30 per cent of the supposed school population while in Dickenson County it was 70 per cent. Yet each of those counties received State funds on the basis of the school population. Again in 1917-18 Alexandria County with a supposed school population of 4,759 but with an enrolment of 2,631 and an average daily attendance of only 1,621 received more State aid than Alleghany County with a supposed school population of 4,445 but an enrolment of 3,244 and an average daily attendance of 2,444. Throughout the State the grossest inequalities of State aid arise from similar differences between school population, school enrolment, and school attendance. As a matter of actual fact the present method of apportionment pays a premium to counties for keeping children out of school, since funds are supplied on the basis of school population but expended on the basis of attendance.

(2). Closely related to this is the unfairness which arises from the fact that, within certain limits, State and county funds are apportioned without definite relation to the amount of education provided, as measured by the length of the school term. Counties and districts having a school term of seven months, for instance, receive per child of school age the same amount of State or county aid as counties or districts having a

school term of nine months. Thus, for example, Lancaster County, with an average school term of 140 days, received from the Constitutional tax fund in 1917-18 just as much State aid per child of school age as Northampton County with an average school term of 164 days, Henrico County with an average school term of 188 days, or Norfolk City with an average of 200 days. By the present method of apportionment the State pays counties or cities, and counties pay districts, a premium for short school terms.

(3). Again unfairness is found in the present method of apportionment by virtue of the fact that the adequacy of instruction is ignored. Thus in 1917-18 Southampton County with one teacher for every 64 white and every 82 colored children of the school population received the same amount of State aid per child of school age as Craig County with one teacher for every 36 children of the school population, or Albemarle County with one teacher for every 40 white and every 54 colored children of the school population. Again the State pays the county and the county pays the district a premium for maintaining an inadequate teaching force.

(4). At present the school census is taken once every five years, with the result that gains or losses in population may frequently make the latest figures for school population very erroneous. Thus the school census (1915) for Newport News, Portsmouth, Norfolk, Petersburg, and Hopewell had little relation to the school population of those cities in 1918-19. Under the present plan the figures on which the apportionment is based can be assumed correct only every fifth year.

(5). The present method of apportionment disregards almost entirely the great differences among counties, cities, and districts in their ability to provide for school support out of local funds. The wealthiest cities and the poorest cities, the wealthiest counties and the poorest counties, all receive alike the same relative amount of State aid. Thus considering real estate only we find such great differences as the following: Scott County and Frederick County have approximately the same rates of tax assessment (26.0 and 26.1 per cent respectively), but Scott County has only \$231 of assessed real estate for each

pupil enrolled, while Frederick County has \$1,298. Again Henrico County and Lee County have nearly the same rates of tax assessment (28.0 and 27.4 per cent respectively), but Henrico County has \$3,230 of assessed real estate for each pupil enrolled, while Lee County has only \$430. Finally, Caroline County and Norfolk City have approximately the same rates of assessment (50.8 and 51.3 respectively), but Caroline County has \$639 of assessed real estate for each pupil enrolled, while Norfolk City has \$4,182.

In calling attention to such inequalities of wealth among the various counties and cities it is not intended to imply that any attempt should be made to eliminate that factor entirely. That would neither be possible nor wise. It is intended, however, to point out that, while the majority of counties and cities are able to support their schools properly, others can do so only with a very unfair burden of local taxation, and some cannot possibly support their schools without special aid from the State. For this reason it is necessary to set apart a portion of the State funds to be employed in aid of schools in counties, cities, or districts, where adequate support of education through local funds, supplemented only by the regular State aid, would either entail excessive financial burdens or be totally impossible.

(6). Finally, it is to be noted that the present method of apportionment of the State school fund makes no distinction between counties, cities, and districts which make little effort to provide proper education and those which make every effort to maintain good schools. Thus, in 1917-18 Grayson County received 69 per cent of all school funds and 87 per cent of all instructional funds from the State, though expending only \$6.51 for instruction per white pupil enrolled and having a very low rate of assessed valuation (19.1 per cent on real estate at the time of the report of the Special Tax Commission.) Thus Carroll County received 54 per cent of all school funds and 76 per cent of all instructional funds from the State, though expending only \$6.37 for instruction per white pupil enrolled and having the lowest rate of assessed valuation in the State (12.5 per cent on real estate at the time of the report of the Special Tax Commission).¹ Such counties may deserve special

¹ For other instances see Table 123.

State aid, but such aid should always be conditioned by evidence that the county itself is assuming a reasonable share of its responsibility. The State funds should be apportioned to counties with such limitations that no county or city can shift its own legitimate responsibility to the State.

All of these defects in the present method of apportioning State and county funds may be remedied: (a) by providing for their apportionment on the basis of the aggregate number of days attended by pupils and of the number of teachers employed; (b) by providing a special State fund to assist counties or cities unable to support their schools with a reasonable rate of assessment and taxation; (c) by conditioning such apportionments to some degree on the extent to which reasonable local support is provided. Recommendations covering these points are presented in the following section.

V.—PROPOSALS FOR SCHOOL SUPPORT IN VIRGINIA

Above it has been shown that financial support for the public schools in Virginia is very far from being sufficient to meet even minima standards, that provisions for raising school funds are faulty, and that the present methods of apportioning funds involve serious defects. It remains to suggest means by which remedies may be applied and school support in Virginia placed on a sound foundation.

1. The primary problem of school support to be solved involves the amount and quality of education which should be provided. In the judgment of the Survey Staff the minimum amount of education (per year) which should be considered at all is nine months (180 actual school days), and the minimum quality should be that which can be secured at the rate for instructional costs of twenty-five dollars, or for all costs of thirty-five to forty dollars, per pupil in average daily attendance. Since, however, the length of the school term varies widely in different parts of the State the minimum standard would better be expressed in terms of the aggregate days' attendance. On such a basis the minimum standard should be approximately fifteen cents per days' attendance for instructional costs, or twenty-five cents per day for all costs.

2. The second problem to be solved involves the proportion of school expenditures to be borne by the State and by the county or city. Virginia's present practice is, for the most part, satisfactory, approximately one-half of the instructional costs being borne by the State, while the expenses of operation, maintenance, and permanent outlay are paid almost entirely out of local funds. The only important change needed is provision for the special relief fund mentioned below.

3. The third problem is that involving the methods of raising necessary funds. Here four principal reforms are needed: (a) provision for carrying out the intent of the Constitution by restoring the five mill limit of State school taxation on real estate, personal tangible property, and the personal property of corporations in the "tax segregation" law; (b) repeal of the Constitutional limit of five mills for combined county and district taxation; (c) provision for making the county the unit of local administration and the primary agency for local taxation; (d) provision for the equalization of assessed valuation and for a higher rate of assessment; (e) that provision be made to reduce to a reasonable amount and to establish on a reasonable basis the commissions paid to county and city treasurers (\$159,103 in 1917-18).¹

4. A fourth problem is that of the amount of money for school purposes to be raised by the State. Here four general classes of funds are involved: (a) the general school fund for apportionment to county and city schools; (b) the special relief fund for the aid of counties or cities which cannot support their schools without oppressive financial burdens; (c) the fund for general State control, including the operation of the State Department of Education and other State agencies of administration; (d) any special funds which may be required, e.g., a fund to meet the provisions of the Smith-Hughes Act, or a special fund for free text-books if borne by the State. Of these funds (c) and (d) can best be provided in conformance with special budgets prepared annually. Funds (a) and (b), however, should be cared for by definite legal provisions.

¹ The total salaries paid to division superintendents (county and city) for 1917-18 were \$150,661—less than the commissions paid to county and city treasurers for handling school funds.

The general State school fund for instructional purposes to be apportioned to counties and cities should be determined on the basis of the minimum desirable standard adopted for instructional costs per pupil in average daily attendance. If the proposed minimum standard of \$25 per pupil be adopted and if the State continues its present policy of providing one-half of the instructional cost, then the general State school fund will require an amount equal to the number of children in average daily attendance multiplied by \$12 or \$13. For reasons already given, however, it is desirable to determine the amount on the basis of the aggregate days' attendance. On that basis the general State fund will require an amount equal to seven or eight cents multiplied by the aggregate days attendance.

It is recommended that legal provision be made for the annual levy of a State school tax to produce annually at least \$13 for every pupil in average daily attendance or eight cents for each day of the aggregate days' attendance during the preceding school year, \$12 per pupil in average daily attendance or seven cents per day's attendance to be set apart for general apportionment as suggested below, and \$1 per pupil in average daily attendance or one cent per day's attendance to be set apart to be applied to the special relief fund for needy counties or cities. The better method by far is that which is based on the aggregate days' attendance.

It is to be noted that the method above recommended provides automatically for the expansion (or contraction) of the general school fund according to the annual increase (or decrease) of the amount of actual instruction to be provided. This is in very definite contrast with the present system of a fixed one mill tax in Virginia or with any fixed millage tax. Whatever be the cost standard set the school fund should have a definite relation to the units involved, i.e., the number of children to be educated, the amount of education to be provided, and the quality of instruction determined upon. No fixed millage tax can meet those conditions from year to year. The plan proposed does.

5. The final problem to be solved is that involving the method of apportioning the general State school fund and the special relief fund to counties and cities.

It is doubtful that any plan for the apportionment of State school funds could be worse than that now employed in Virginia. Its serious defects have already been pointed out. It remains to suggest a plan of apportionment which will remedy those defects. To that end it is recommended:

(a). That the general State school fund be distributed as follows: (i) approximately one-third to be apportioned to counties and cities on the basis of the aggregate days' attendance; (ii) approximately one-third to be apportioned to counties and cities on the basis of the number of full time teachers employed; (iii) approximately one-third to be apportioned to counties and cities on the basis of the adequacy of local provision for instructional funds according to regulations determined by the State Board of Education or by the General Assembly.

(b). That the special relief fund be distributed to needy counties and cities according to regulations to be determined by the State Board of Education, with proper regard to the available resources of such counties or cities and to the adequacy of local school support.

All problems of public education ultimately involve the question of finance. In the long run the Commonwealth of Virginia must get exactly the amount and quality of education for which it pays. It is now paying for very limited and very poor education. If the State desires better education it must pay for it. Virginia should decide at once whether she is to continue her present policy or adopt a policy which will provide for the citizens of Virginia educational facilities at least equal to those provided in other States.

RECOMMENDATIONS

1. That the State adopt a minimum standard for the average cost of education, that standard at present to be not less than fifteen cents per unit of the aggregate days' attendance for instructional costs (teachers' salaries), or not less than twenty-five cents per unit of the aggregate days' attendance for all school costs.

2. That legal provision be made for State instructional funds to be determined annually or biennially on the basis of not less

than eight cents per unit of the aggregate days' attendance, seven-eighths of that fund to be set apart as a general instructional fund to be apportioned to all counties and cities, and one-eighth to be set apart as a special relief fund for aid to needy counties or cities.

3. That legal provision be made for the distribution of the general State instructional fund as follows: (a) one-third to be apportioned to counties and cities on the basis of the aggregate days' attendance; (b) one-third to be apportioned to counties and cities on the basis of the number of teachers employed; (c) one-third on the basis of the adequacy of local support according to regulations to be determined by the State Board of Education or by the General Assembly.

4. That the special relief fund be distributed to needy counties and cities according to regulations to be determined by the State Board of Education.

5. That the annual income of the Literary Fund be devoted to increasing the principal of that fund until it amounts to \$5,000,000, after which the annual income should be devoted (a) one-half to increase the principal, and (b) one-half to provide subsidies in encouragement of special phases of education.

6. That the Constitutional limit on local taxation be repealed.

7. That all provisions of the Constitution or of the code inconsistent with the above recommendations be repealed or so amended as to permit the fulfilment of the recommendations made.

TABLE 1¹

Showing: (A) The number of counties having various numbers of persons to each square mile in 1910;² (B) the number of counties in Virginia having in 1910 various per cents of their population rural (resident in the open country or in communities of less than 2,500 population);³ (C) the number of counties having in 1910 various per cents of their population colored.³

Population per square mile	A ²			B ³		C ³		
	Number of counties belonging to each group			Per cent of population rural	Number of counties	Per cent of population colored	Number of counties	Number of cities
	White	Colored	Total					
5 or less	.....	24	.....	1-10	.....	Less than 1	2	.....
6-10....	6	15	.....	11-20..	1	1.0- 4.9	10	.....
11-15....	18	17	4	21-30	2	5.0- 9.9	8	.....
16-20....	11	18	.....	31-40	3	10.0-14.9	5	1
21-25....	16	12	5	41-50	2	15.0-19.9	6	4
26-30....	17	6	13	51-60	1	20.0-29.9	12	4
31-35....	7	1	20	61-70	2	30.0-39.9	14	7
36-40....	8	3	15	71-80	8	40.0-49.9	11	1
41-45....	6	.....	15	81-90	6	50.0-59.9	22	.....
46-50....	2	.....	9	91-99	3	60.0-69.9	8	.....
Over 50	9	4	19	100	72	71.7	2	.....
Total	100	100	100		100		100	17

¹ Tables compiled from data given in the Thirteenth Census (1910) Virginia Supplement.

² Figures for counties (exclusive of cities) enumerated in the Thirteenth Census.

³ Figures for the counties inclusive of the city population.

TABLE 2¹*Distribution of the estimated population in 1917.*

SIZES OF TOWNS POPULATION	Number of towns	Total population	Per Cent of total Population	
			Separate	Cumulative
100-199.....	424	54,752	2.5	2.5
200-299.....	139	32,630	1.5	4.0
300-399.....	87	29,263	1.3	5.3
400-499.....	37	16,590	0.8	6.1
500-599.....	30	15,933	0.7	6.8
600-699.....	13	8,364	0.4	7.2
700-799.....	13	9,627	0.5	7.7
800-899.....	12	9,966	0.5	8.2
900-999.....	4	3,742	0.2	8.4
1,000-1,499.....	25	30,381	1.4	9.8
1,500-1,999.....	18	31,315	1.4	11.2
2,000-2,999.....	12	29,286	1.3	12.5
3,000-3,999.....	7	24,032	1.1	13.6
4,000-4,999.....	4	18,122	0.8	14.4
5,000 and over.....	18	511,585	23.2	37.6
Total in towns 100 and over.....	843	825,638	37.6	37.6
Total in rest of State		1,376,884	62.4	62.4
Estimated total popu- lation in 1917		2,202,522	100.0	100.0

¹ Figures compiled from those given in the Rand-McNally Virginia Guide. They should be considered as approximate only, but valuable for general analysis. No exactness is to be expected.

TABLE 3¹*Showing the distribution of occupations in Virginia for 1910.*

OCCUPATIONS	Number engaged	Per cent engaged
Agriculture.....	359,420	45.2
Mining.....	13,218	1.7
Manufacturing.....	161,885	20.3
Transportation.....	49,033	6.2
Trade.....	52,324	6.6
Public Service.....	10,876	1.4
Professional Service.....	25,552	3.2
Domestic and Personal Service.....	102,841	12.9
Clerical Occupations.....	20,419	2.6
All gainful occupations.....	795,568	100.0

¹ Table compiled from data given in the Thirteenth Census, Vol. IV, pp. 44-45.

TABLE 4¹

Showing the percentages of illiteracy in Virginia according to the Federal Census of 1910

CLASSES	Persons over 10 years of age				Children of ages 10-12	
	Per cent. urban	Per cent. rural	Per cent. State	Virginia's position	Per cent. of illiteracy	Virginia's position
Native white, native parentage	2.4	10.0	8.2	41a	5.7	41-42
Native white, foreign or mixed parentage.....	0.6	2.0	1.2	.....	0.6	.....
Foreign born.....	8.7	9.8	9.2	.....	4.2	.....
Negroes.....	22.1	32.8	30.0	42b	16.0	40
All classes.....	9.2	17.2	15.2	40c	9.2	39

¹ Table compiled from data given in the Thirteenth Census, Vol. I, pp. 1198, 1209, 1231.

a The only States with greater illiteracy for this class being: North Carolina (12.3%); South Carolina (10.5%); Kentucky (10.7%); Tennessee (9.9%); Alabama (10.1%); Louisiana (15.0%); New Mexico (15.5%).

b The only States with greater illiteracy for this class being: North Carolina (31.9%); South Carolina (38.7%); Georgia (36.5%); Alabama (40.1%); Louisiana (48.4%); Mississippi (35.6%).

c The only States with greater illiteracy for this class being: North Carolina (18.5%); South Carolina (25.7%); Georgia (20.7%); Alabama (22.9%); Mississippi (22.4%); Louisiana (29.0%); New Mexico (20.2%); Arizona (20.9%).

TABLE 5¹

Showing the numbers of counties in Virginia having various percentages of illiteracy

FEDERAL CENSUS, 1910					STATE SCHOOL CENSUS, 1915			
Per Cent	Persons over 10 years			Ages 10-20	Ages 7-19			
	White.	Colored. ²	Total.	Both races	Per Cent	White.	Colored. ²	Total.
Less than 5.....	14	....	1	10	Less than 1....	22	3	5
5.0- 9.9.....	38	....	5	41	1.0- 1.9.....	15	6	12
10.0-14.9.....	23	....	13	31	2.0- 2.9.....	20	5	12
15.0-19.9.....	17	....	27	14	3.0- 3.9.....	10	8	9
20.0-24.9.....	7	3	19	4	4.0- 4.9.....	9	7	15
25.0-29.9.....	....	4	27	.....	5.0- 9.9.....	20	30	32
30.0-34.9.....	1	13	7	.....	10.0-14.9.....	4	23	10
35.0-39.9.....	....	25	1	.....	15.0-19.9.....	....	8	3
40.0-44.9.....	....	18	....	.....	20.0-24.9.....	....	4	1
45.0-49.9.....	....	21	....	.....	25.0-29.9.....	....	2	1
50.0-54.9.....	....	7	....	.....	30.0-34.9.....	....	1	...
55.0-59.9.....	....	2	....	.....	35.0-39.9.....	....	1	...
60.0-65.3.....	....	1	....	.....	Average.....	3.3	9.7	5.5

¹ Table compiled from data presented in the Thirteenth Census, Vol. III, pp. 936ff., and in the Report of the (Virginia) Superintendent of Public Instruction, 1917-18, pp. 101-102.

² Six counties contained each too few colored persons to warrant proportioning.

³ Two counties not accounted for in the State Census because of very small Negro population.

TABLE 6

*Showing the number of counties keeping their schools open
for various lengths of time 1917-18*

LENGTH OF THE SCHOOL YEAR IN MONTHS	All non-city schools			One- and two-room schools		
	White	Colored	Both	White	Colored	Both
3.5 or less.....	.....	1	1	.....	1	1
3.6-4.0.....	.....	1	1	.....	1	1
4.1-4.5.....	.....	.....	.....	.....	.....	.....
4.6-5.0.....	.....	8	8	1	7	8
5.1-5.5.....	.....	15	15	11	21	32
5.6-6.0.....	8	30	38	22	31	53
6.1-6.5.....	14	18	32	16	13	29
6.6-7.0.....	13	14	27	21	15	36
7.1-7.5.....	24	3	27	15	3	18
7.6-8.0.....	21	3	24	7	2	9
8.1-8.5.....	8	2	10	2	1	3
8.6-9.0.....	7	.....	7	2	.....	2
9.1-9.5.....	4	1	5	1	1	3
9.6-10.0.....	1	1	2	1	1	2
Medians in months.....	7.3	6.0	6.9	6.5	5.9	6.1

Table compiled from figures furnished by the records of the State Department of Education. Cf. Report of the State Superintendent, 1917-18, pp. 73-75.

TABLE 7

Showing for 748 white and 230 colored schools the number of non-city schools having in 1917-18 school terms of various lengths

LENGTH OF THE SCHOOL YEAR IN MONTHS	White			Colored		
	Number	Per Cent	Cumulative Per Cent	Number	Per Cent	Cumulative Per Cent
5 or less.....	65	8.69	8.69	74	32.17	32.17
5.1-6.0.....	226	30.21	38.90	79	34.35	66.52
6.1-7.0.....	266	35.56	74.46	43	18.70	85.22
7.1-8.0.....	148	19.80	94.26	22	9.57	94.79
8.1-9.0.....	36	4.81	99.07	7	3.04	97.88
Over 9.0.....	7	.93	100.00	5	2.17	100.00
Total.....	748	100.00	100.00	230	100.00	100.00
Medians.....	6.9 months			5.8 months		
Averages.....	6.9 months			6.1 months		

Table compiled from statistics furnished by the State Department of Education, Form T-24.

TABLE 8

*Showing the number of months contracted for with teachers for 1918-19—
Non-city schools*

NUMBER OF MONTHS CONTRACTED FOR	White schools			Colored schools		
	Number	Per Cent	Cumulative Per Cent	Number	Per Cent	Cumulative Per Cent
5.....	113	3.26	3.26	87	8.89	8.89
6.....	382	11.03	14.29	422	43.15	52.04
7.....	1,879	54.24	68.53	354	36.20	88.24
8.....	629	18.16	86.69	80	9.10	97.34
9.....	449	12.96	99.65	22	2.25	99.59
10.....	12	.35	100.00	4	.41	100.00
Total.....	3,464	100.00	100.00	978	100.00	100.00
Medians.....	6.66 months			5.95 months		
Averages.....	7.27 months			6.54 months		

Table compiled from statistics furnished by the State Department of Education, Form S—No. 4.

TABLE 9

Showing Virginia's position with respect to enrolment in 1910

PER CENT OF CHILDREN ATTENDING SCHOOL IN THE SCHOOL YEAR 1909-10	National record	Virginia's record	Virginia's position among 48 States
Persons 6-20 years of age.....	62.3	56.3	43
Children 6-9 years of age.....	73.5	54.0	45
Children 10-14 years of age.....	88.2	80.5	40
Children 15-20 years of age.....	32.9	35.6	24
Children 6-14 years of age.....	81.4	68.3	43
Children of native white parentage 6-14 years of age.....	92.6	73.2	44
Negro children 6-14 years of age.....	90.9	58.7	42
Children of native white parentage 6-20 years of age.....	66.9	61.2	43
Negro children 6-20 years of age.....	47.3	47.2	42

Table compiled from statistics in the Thirteenth (Federal) Census, Vol. I, p. 1100 ff.

TABLE 10

Showing enrolment and attendance in Virginia, in the South Atlantic States, and in the United States, 1915-16

ITEM	Virginia	South Atlantic States	United States	Position of Virginia
Per cent of children 5-18 years of age enrolled.....	73.0	76.3	75.8	34
Number of pupils attending daily for each 100 en- rolled.....	69.8	69.4	75.5	34
Average days' attendance for each child 5-18 years of age.....	77.9	71.6	91.7	40
Average days attended by each pupil enrolled.....	98.4	93.8	120.9	35

Table compiled from data given in the Report of the (U. S.) Commission of Education, 1917, Vol. II, pp. 72, 74, 75.

TABLE 11a

*Showing school population, enrolment, and attendance in Virginia
from 1890 to 1918*

WHITE	1890	1900	1910	1915	1917-18
Total population....	<i>b</i> 1,020,122	1,192,855	1,389,809	1,488,286	1,527,587
School population... <i>c</i>	292,569	341,992	398,408	435,255	463,242
School enrolment....	220,210	250,697	282,452	343,159	348,918
Average daily attendance.....	129,973	149,915	186,239	233,657	234,725
COLORED					
Total population....	<i>b</i> 635,438	660,722	671,096	676,283	678,358
School population... <i>c</i>	206,200	214,404	217,760	222,258	224,958
School enrolment....	122,059	119,898	119,657	131,051	132,316
Average daily attendance.....	68,317	66,549	73,155	83,483	82,631

a Table compiled from statistics of the State Department of Education and of the Federal Census for 1910.

b Total population estimated for 1915 and 1917-18 on the basis of the average annual increase.

c Figures for 1890 and 1900 estimated on the basis of the relation of school population (seven to nineteen, inclusive) to the total population. In 1902 the State changed the basis of school population, so that State figures for 1890 and 1900 cannot be compared with those for 1915. Figures for 1917-18 (school population) estimated on the basis of the average annual increase 1910 to 1915.

TABLE 12

Percentages based on the figures in Table 11

WHITE	1890	1900	1910	1915	1917-18
Per cent of total population enrolled.....	21.6	21.0	20.3	23.1	22.8
Per cent of school population enrolled.....	75.3	73.3	70.9	78.8	75.3
Per cent of school population attending daily.....	44.4	43.8	46.8	53.7	50.7
Per cent of enrolment attending daily.....	59.0	59.8	62.4	68.1	67.3
COLORED					
Per cent of total population enrolled.....	19.3	18.2	17.8	19.4	19.5
Per cent of school population enrolled.....	59.2	55.9	54.5	59.0	58.8
Per cent of school population attending daily.....	33.1	31.0	33.6	37.6	36.1
Per cent of enrolment attending daily.....	56.0	55.5	61.1	63.7	62.5

TABLE 13

Showing the number of counties having various records for attendance in 1917-18, as based on school population (1915) and as based on school enrolment.

PER CENT OF ATTENDANCE, 1917-18	Based on school population		Based on school enrolment	
	White	Colored	White	Colored
15 or less.....	.....	2	.....	.....
16- 20.....	.....	4	.....	.....
21- 25.....	.....	10	.....	.....
26- 30.....	.....	16	.....	.....
31- 35.....	3	30	.....	.....
36- 40.....	8	14	.....	.....
41- 45.....	17	9	.....	4
46- 50.....	31	4	.....	12
51- 55.....	19	5	8	14
56- 60.....	13	2	13	22
61- 65.....	3	.....	29	23
66- 70.....	4	.....	27	14
71- 75.....	1	1	16	5
76- 80.....	.....	.....	4	3
81- 85.....	.....	.....	2	.....
86- 90.....	.....	.....	.....	.....
91- 95.....	.....	.....	1	.....
96-100.....	1	.....	.....	.....
Number of counties.....	100	97 ^a	100	97 ^a

^a No schools for Negroes in Craig, Dickenson and Buchanan Counties.

Table compiled from figures supplied by the records of the State Department of Education, Report of Superintendent, 1917-18, pp. 67-69.

TABLE 14

*Showing the per cent. of attendance (based on enrolment) for 1917-18 in
624 white rural schools and 218 colored rural schools*

PER CENT OF ATTENDANCE	White schools			Colored schools		
	Number	Per cent	Cumulative per cent	Number	Per cent	Cumulative per cent
Under 26.....	2	.4	.4	1	.5	.5
26-30.....	2	.4	.8	7	3.1	3.6
31-35.....	14	2.2	3.0	4	1.8	5.4
36-40.....	15	2.4	5.4	10	4.6	10.0
41-45.....	36	5.8	11.2	9	4.2	14.2
46-50.....	62	9.9	21.1	27	12.5	26.7
51-55.....	73	11.7	32.8	26	12.0	38.7
56-60.....	99	15.8	48.6	25	11.5	50.2
61-65.....	80	12.8	61.4	27	12.5	62.7
66-70.....	71	11.3	72.7	29	13.3	76.0
71-75.....	70	11.2	83.9	18	8.2	84.2
76-80.....	55	8.9	92.8	14	6.2	90.4
81-85.....	28	4.5	97.3	11	5.1	95.5
86-90.....	16	2.5	99.8	8	3.6	99.1
91-95.....	1	.2	100.0	2	.9	100.0
Medians.....	60.6 per cent			61.7 per cent		

Table compiled from statistics collected by the Survey.

TABLE 15
Showing relative numbers and percentages of pupils of various ages in the schools of eighteen counties and all cities of Virginia in 1918-19¹

AGE	Number				Per cent				Cumulative per cent			
	White		Colored		White		Colored		White		Colored	
	Countries	Cities	Countries	Cities	Countries	Cities	Countries	Cities	Countries	Cities	Countries	Cities
4.....	292	10	.....	.....	.....	4	.....	.....	.....	4	.....	0
5.....	669	1,931	185	542	1.4	3.0	1.4	2.2	1.4	3.4	1.2	2.2
6.....	3,369	5,082	850	1,638	6.9	7.9	8.3	6.8	8.3	11.3	6.7	9.0
7.....	4,809	6,499	1,534	2,540	9.8	10.1	18.1	10.3	18.1	21.4	16.6	19.3
8.....	5,070	6,943	1,589	2,870	10.3	10.8	28.4	11.6	28.4	32.2	26.9	30.9
9.....	4,992	7,091	1,622	2,827	10.2	11.0	38.6	11.4	38.6	43.2	37.4	42.3
10.....	5,115	7,065	1,697	2,828	10.4	11.0	49.0	11.4	49.0	54.2	48.4	53.7
11.....	4,897	6,446	1,438	2,702	10.0	10.0	59.0	11.0	59.0	64.2	57.7	64.7
12.....	4,873	6,175	1,666	2,598	9.9	9.6	68.9	10.5	68.9	73.8	68.5	75.2
13.....	4,494	5,549	1,415	2,271	9.1	8.6	78.0	9.2	78.0	82.4	77.7	84.4
14.....	3,811	4,239	1,382	1,639	7.7	6.6	85.7	6.6	85.7	89.0	86.7	91.0
15.....	2,888	3,026	1,005	1,067	5.9	4.7	91.6	4.3	91.6	93.7	93.2	95.3
16.....	2,081	2,242	645	645	4.2	3.5	95.8	2.7	95.8	97.2	97.2	98.0
17.....	1,117	1,167	232	306	2.3	1.8	98.1	1.3	98.1	99.0	98.7	99.3
18.....	613	484	144	136	1.2	1.7	99.3	.6	99.3	99.7	99.6	99.9
19.....	235	142	46	33	.5	.2	99.8	.1	99.8	99.9	99.9	100.0
20.....	68	40	7	6	.1	.1	100.0	.0	100.0	100.0	100.0	100.0
Over 20.....	28	16	1	6	.1	.0	100.0	.0	100.0	100.0	100.0	100.0
Total.....	49,129	64,429	15,419	24,713	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ These figures must be taken as indicating proportions only. The elimination of incorrect returns from some schools precludes the use of the figures given as indicating total enrollments.

TABLE 16

Showing the percentages that each age group is of the average size of age groups for ages eight, nine, ten, eleven

AGE (Base) ¹	White			Colored		
	Counties	Cities	Total	Counties	Cities	Total
	5,000	6,900	12,000	1,600	2,800	4,400
5.....	13.4	28.0	21.7	11.6	19.3	16.5
6.....	67.4	73.7	70.4	53.1	60.3	57.7
7.....	96.2	94.2	94.2	95.9	90.7	92.6
8.....	101.4	100.6	100.1	99.3	102.5	101.3
9.....	99.8	102.8	100.7	101.4	101.0	101.1
10.....	102.3	102.4	102.4	106.1	101.0	102.8
11.....	97.9	93.3	94.5	90.0	96.5	94.1
12.....	97.5	89.5	92.1	104.1	92.8	96.9
13.....	89.9	80.4	85.3	88.4	81.1	83.8
14.....	76.2	61.4	67.1	86.4	58.5	68.7
15.....	57.8	43.9	49.3	62.8	38.1	47.1
16.....	41.6	32.5	36.0	37.9	23.0	28.4
17.....	22.3	16.9	19.0	14.5	11.0	12.2
18.....	12.3	7.0	9.1	9.0	4.9	6.4
19.....	4.7	2.1	3.1	2.9	1.2	1.8
20.....	1.0	.6	.9	.4	.2	.3
Over 20.....	.6	.2	.4	.1	.2	.2

¹ Figures in this line represent the approximate average size of age groups for children in school of ages eight, nine, ten, eleven. Figures below represent the percentages that the various age groups are of that approximate average in each case.

TABLE 18

Showing for eighteen counties and all cities (except Richmond) the percentages that the numbers of pupils remaining in school for various lengths of time are of the average number of those remaining one, two, three, and four years in school.

LENGTH OF STAY IN YEARS	White		Colored	
	Counties	Cities	Counties	Cities
1, 2, 3, 4.....	Nearly one four years.	hundred per	cent remain	for at least
5.....	103.7	103.6	86.3	85.9
6.....	84.7	89.1	69.0	69.0
7.....	70.7	71.9	43.1	50.3
8.....	52.3	59.1	29.4	30.2
9.....	37.4	38.2	14.7	18.4
10.....	24.0	26.8	7.5	12.2
11.....	13.9	14.8	4.3	5.6
12.....	4.8	4.6	1.5	4.1
Over 12.....	3.0	.8	.8	6.6

TABLE 19

Showing the relative numbers and percentages of pupils in various grades of the schools in eighteen counties and all the cities of Virginia in 1918-19¹

GRADE	Numbers				Per cent				Cumulative per cent			
	White		Colored		White		Colored		White		Colored	
	Counties	Cities	Counties	Cities	Counties	Cities	Counties	Cities	Counties	Cities	Counties	Cities
Kindergarten.....	.....	1,015	.....	77	.....	1.6	.....	3	.....	1.6	.....	3
Primary.....	1,582	876	455	342	3.2	1.4	3.0	1.4	3.2	3.0	.....	1.7
I.....	11,457	10,379	5,646	6,123	23.3	16.1	36.6	24.8	26.5	19.1	39.6	26.5
2.....	6,157	7,618	2,679	4,157	12.5	11.8	17.4	16.8	39.0	30.9	57.0	43.3
3.....	6,403	7,929	2,285	3,800	13.0	12.2	14.8	15.4	52.0	43.1	71.8	58.7
4.....	6,458	7,946	1,988	3,413	13.2	12.3	12.9	13.8	65.2	55.4	84.7	72.5
5.....	5,320	7,825	1,318	2,503	10.9	12.2	8.6	10.1	76.1	67.6	93.3	82.6
6.....	4,339	6,002	671	1,619	8.8	9.3	4.3	6.6	84.9	76.9	97.6	89.2
7.....	3,481	4,770	299	1,059	7.1	7.4	1.9	4.3	92.0	84.3	99.5	93.5
8 ²	156	312	15	206	.3	1.3	.1	.8	92.3	85.6	99.6	94.3
I.....	1,574	3,774	51	729	3.2	5.9	.3	3.0	95.5	91.5	99.9	97.3
II.....	1,086	2,503	12	404	2.2	3.9	.1	1.6	97.7	95.4	100.0	98.9
III.....	695	1,616	.....	197	1.4	2.5	.....	.8	99.1	97.9	100.0	99.7
IV.....	421	1,364	.....	84	.9	2.1	.....	.3	100.0	100.0	100.0	100.0
Total.....	49,129	64,429	15,419	24,713	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ These figures are relative only, being somewhat less than the total enrolments because many returns were faulty and could not be used for statistical purposes. However, they are fully sufficient for a fairly accurate estimate of proportions.

² The eighth grade in almost all cases is not an integral part of the school course. Notable exceptions are the cities of Norfolk and Harrisonburg.

TABLE 20

Showing the per cent that the number of pupils in each grade is of the approximate average number of pupils of ages 8, 9, 10, 11 in eighteen counties and all cities of Virginia in 1918-19¹.

White				Colored		
GRADE	Counties	Cities	Total	Counties	Cities	Total
Base	5,000	6,900	12,000	1,600	2,800	4,400
Kindergarten.	.....	14.73	8.46	.....	2.75	1.73
Primary.....	31.64	12.70	20.48	28.44	12.21	18.11
1.....	229.14	150.42	181.88	352.88	214.75	267.48
2.....	123.14	110.41	114.80	167.44	148.48	155.36
3.....	128.06	114.91	119.43	142.81	135.71	138.30
4.....	129.16	115.16	120.03	124.25	121.89	122.75
5.....	106.20	113.41	109.54	82.38	89.40	86.84
6.....	86.78	86.99	86.18	41.94	57.82	52.05
7.....	69.62	69.13	68.76	18.69	37.82	30.89
8 ²	3.12	11.77	8.07	.94	7.36	5.02
I.....	31.58	54.70	44.57	3.19	26.04	17.50
II.....	21.72	36.24	29.91	.75	14.43	9.45
III.....	13.90	23.42	19.26	.....	7.04	4.48
IV.....	8.42	19.77	14.88	.....	3.00	1.91

¹ Percentages above 100 in grades one to five indicate that a very large number of pupils have failed of promotion and have been held back. The number of pupils in those grades, is always much larger than the size of any entering class.

² The eighth grade is a regular part of the course in a few schools, notably in the cities of Norfolk and Harrisonburg.

TABLE 21

Showing the median ages of pupils in various grades of different types of schools in eighteen counties and all cities of Virginia in 1918-19

GRADE	Standard		White			Colored		
	National	Virginia	One-room rural	Total rural	Total city	One-room rural	Total rural	Total city
1.....	6.5	7.5	7.4	7.3	6.5	8.2	8.1	7.3
2.....	7.5	8.5	9.0	8.8	7.8	10.5	10.4	8.9
3.....	8.5	9.5	10.1	10.0	8.9	12.0	11.8	10.1
4.....	9.5	10.5	11.4	11.1	9.9	13.1	12.8	11.0
5.....	10.5	11.5	12.6	12.3	10.9	14.2	13.9	12.0
6.....	11.5	12.5	13.6	13.2	12.1	15.0	14.5	13.0
7.....	12.5	13.5	14.9	14.5	12.9	15.1	15.2	13.9
I.....	14.5	14.5	.....	14.9	14.1	.....	16.1	14.5
II.....	15.5	15.5	.....	15.8	15.0	.....	.....	15.8
III.....	16.5	16.5	.....	16.5	16.0	.....	.....	16.6
IV.....	17.5	17.5	.....	17.4	16.9	.....	.....	17.3

TABLE 22

Showing the percentages of pupils of normal age, under age, and over age (one year span) in the schools of eighteen counties and all cities of Virginia, 1918-19, according to the Virginia standard (entrance age seven) and the national standard (entrance age six).

STATUS OF PUPILS	County schools					City schools		
	One-room	Two-room	Three-room	Four rooms and over	Total county	Under 10,000 population	Over 10,000 population	All city
WHITE								
Total number....	12,607	9,236	4,736	22,634	49,213	9,814	54,525	64,339
Virg'a standard:								
Over age.....	61.3	63.7	58.8	52.0	57.3	42.6	28.5	30.6
Of normal age..	20.9	20.4	23.7	26.5	23.6	31.7	30.5	30.6
Under age.....	17.8	15.9	17.5	21.5	19.1	25.7	41.0	38.8
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nat'l standard:								
Over age.....	82.2	83.9	81.5	73.5	78.8	69.6	54.2	56.7
Of normal age..	14.4	13.1	15.0	21.1	16.9	22.9	31.2	29.8
Under age.....	3.4	3.0	3.5	5.4	4.3	7.5	14.6	13.5
COLORED								
Total number....	8,533	4,395	1,147	1,334	19,409	2,175	22,458	24,633
Virg'a standard:								
Over age.....	77.9	89.5	71.1	74.7	80.4	62.3	54.9	55.5
Of normal age..	13.8	8.2	17.9	19.2	13.0	23.2	23.6	23.6
Under age.....	8.3	2.3	11.0	6.1	6.6	14.5	21.5	20.9
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nat'l standard:								
Over age.....	92.6	97.7	90.6	93.8	93.5	85.0	77.5	78.2
Of normal age..	7.0	2.0	7.6	5.4	5.4	12.5	15.8	15.5
Under age.....	1.4	.3	1.8	.8	1.1	2.5	6.7	6.3

TABLE 22-B

Showing the percentages of pupils of normal age, under age, and over age (two-year span) in the schools of eighteen counties and all cities of Virginia in 1918-19, according to the Virginia standard (entrance age seven) and the National standard (entrance age six).

STATUS OF PUPILS	County schools					City schools		
	One-room	Two-room	Three-room	Four rooms and over	All county	Under 10,000 population	Over 10,000 population	All city
WHITE								
Virg'a standard:								
Over age.....	41.5	43.2	36.2	29.9	36.0	24.0	12.0	13.9
Of normal age..	40.7	41.0	46.3	48.6	44.9	50.3	46.9	47.4
Under age.....	17.8	15.9	17.5	21.5	19.1	25.7	41.1	38.7
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nat'l standard:								
Over age.....	61.3	63.5	57.8	48.0	55.3	39.0	25.5	27.5
Of normal age..	35.3	33.5	38.8	46.6	40.4	53.5	59.9	59.0
Under age.....	3.4	3.0	3.4	5.4	4.3	7.5	14.6	13.5
COLORED								
Virg'a standard:								
Over age.....	61.9	73.9	50.4	55.0	63.9	41.4	33.7	34.4
Of normal age..	29.7	23.8	38.6	38.9	29.5	44.1	44.8	44.7
Under age.....	8.4	2.3	11.0	6.1	6.6	14.5	21.5	20.9
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nat'l standard:								
Over age.....	77.9	89.5	72.8	73.1	80.4	61.4	52.9	53.7
Of normal age..	20.7	10.2	25.4	26.1	18.5	36.1	40.4	40.0
Under age.....	1.4	.3	1.8	.8	1.1	2.5	6.7	6.3

Cf. note at close of Chapter IV, and see Table 22.

TABLE 23
Showing the age-grade distribution of 49,129 white pupils in the non-city schools
of eighteen counties of Virginia in 1918-19

AGE	Elementary school grades								High school grades				Total
	Prmr.	1	2	3	4	5	6	7	8	I	II	III	IV
5.....	92	567	8	2	.....	.....	.....	.....	.....	.....	.....	.....	669
6.....	423	2,772	163	10	1	.....	.....	.....	.....	.....	.....	.....	3,369
7.....	485	3,051	1,042	213	17	1	.....	.....	.....	.....	.....	.....	4,809
8.....	272	2,088	1,516	996	188	10	.....	.....	.....	.....	.....	.....	5,070
9.....	142	1,318	1,213	1,364	818	125	11	.....	.....	.....	.....	.....	4,992
10.....	78	758	889	1,369	1,318	586	111	1	.....	.....	.....	.....	5,115
11.....	39	410	496	952	1,373	1,092	430	103	1	1	.....	.....	4,397
12.....	29	265	399	667	1,111	1,118	889	349	1	40	1	.....	4,873
13.....	13	121	228	433	770	1,006	1,014	654	14	205	34	2	4,494
14.....	5	59	125	227	472	699	828	826	29	386	135	18	3,811
15.....	2	33	59	102	242	362	573	669	39	397	280	113	2,888
16.....	2	10	15	50	99	207	297	481	30	293	295	219	2,081
17.....	.....	1	3	8	34	77	110	216	30	156	191	173	1,117
18.....	.....	2	1	3	10	24	55	124	5	65	107	104	613
19.....	.....	1	.....	5	2	9	19	39	3	27	34	42	235
20.....	.....	1	.....	2	2	3	2	13	.....	3	7	15	68
Over 20.....	.....	.....	.....	.....	1	1	.....	1	.....	.....	2	9	28
Totals.....	1,582	11,457	6,157	6,403	6,458	5,320	4,339	3,481	156	1,574	1,086	695	421 49,192

a. The figures printed in italics are those indicating the number of pupils of "normal age" according to the Virginia standard (entrance age, seven years). The figures printed in bold face are those indicating the number of pupils of "normal age," according to the national standard (entrance age, six years). The two standards coincide in the high school.

b. "Primer" grades and eighth grades are not recognized parts of the regular course. "Primer" grades are found, however, in many schools. The eighth grade is very exceptional and when found is usually for a special group of older pupils in schools which have no high-school grades.

TABLE 24
Showing the age-grade distribution of 64,429 white children
in the city schools of Virginia in 1918-19

AGE	Elementary school grades								High school grades				Total		
	Kind.	Prmr.	1	2	3	4	5	6	7	8	I	II		III	IV
4.....	287	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	292
5.....	615	91	1,180	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,931
6.....	105	449	3,937	527	63	1	.....	.....	.....	.....	.....	.....	.....	.....	5,082
7.....	7	210	3,010	2,518	669	82	3	.....	.....	.....	.....	.....	.....	.....	6,499
8.....	1	73	1,315	2,321	2,327	809	83	14	.....	.....	.....	.....	.....	.....	6,943
9.....	.....	24	541	1,210	2,268	2,160	792	93	3	.....	.....	.....	.....	.....	7,091
10.....	.....	17	233	551	1,322	2,264	2,080	517	76	1	4	.....	.....	.....	7,065
11.....	.....	5	86	243	684	1,286	2,222	1,367	499	27	27	.....	.....	.....	6,446
12.....	.....	4	45	122	374	757	1,392	1,837	1,200	168	253	22	1	.....	6,175
13.....	.....	2	16	50	156	426	818	1,220	1,486	265	898	199	13	.....	5,549
14.....	.....	1	10	24	53	113	335	685	931	193	1,160	607	113	14	4,239
15.....	.....	.....	1	4	9	34	75	220	409	109	811	828	426	100	3,026
16.....	.....	.....	.....	3	4	14	19	35	137	31	477	574	564	384	2,242
17.....	.....	.....	.....	.....	.....	.....	5	13	23	12	91	197	327	499	1,167
18.....	.....	.....	.....	.....	.....	.....	1	1	4	6	28	59	113	272	484
19.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	12	12	38	78	142
20.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	3	16	16	40
Over 20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	2	5	1	16
Totals	1,015	876	10,379	7,618	7,929	7,946	7,825	6,002	4,770	812	3,774	2,503	1,616	1,364	64,429

See notes to Table 23. The majority of pupils in the eighth grade are located in the cities of Norfolk and Harrisonburg, which provide eight regular grades of elementary instruction. Most of the city schools have two sections to a grade and promote pupils semi-annually. It seemed best, however, to count both sections in one grade for comparative purposes. By so doing, however, the city schools were considerably favored in the above table.

TABLE 25
*Showing the age-grade distribution of 15,419 colored pupils in the non-city schools
of seventeen counties of Virginia in 1918-19*

AGE	Elementary school grades										High school Grades		Total
	Prmr.	1	2	3	4	5	6	7	8	I	II		
5.....	28	154	3	.....	.....	.....	.....	.....	.....	.....	.....	185
6.....	67	755	24	4	.....	.....	.....	.....	.....	.....	.....	850
7.....	128	1,259	129	17	1	.....	.....	.....	.....	.....	.....	1,534
8.....	79	1,075	322	95	18	.....	.....	.....	.....	.....	.....	1,589
9.....	47	805	451	243	63	13	.....	.....	.....	.....	.....	1,622
10.....	36	602	477	369	178	33	.....	2	.....	.....	.....	1,697
11.....	27	350	368	326	254	89	21	3	.....	.....	.....	1,438
12.....	14	310	357	389	360	171	56	9	.....	.....	.....	1,666
13.....	8	156	237	302	364	231	91	26	.....	.....	.....	1,415
14.....	7	103	165	257	328	282	174	57	3	6	.....	1,382
15.....	7	42	83	172	238	244	133	72	4	10	.....	1,005
16.....	3	24	48	76	110	164	99	61	5	16	.....	606
17.....	3	8	6	19	34	52	50	43	2	13	.....	232
18.....	.....	3	5	9	29	34	34	16	1	4	9	144
19.....	1	.....	4	7	8	4	11	9	.....	1	1	46
20.....	.....	.....	.....	.....	3	1	1	1	.....	1	.....	7
Over 20.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Totals.....	455	5,646	2,679	2,285	1,988	1,318	671	299	15	51	12	15,419	

See notes to Table 23.

TABLE 26
*Showing the age-grade distribution of 24,714 colored pupils
 in the city schools of Virginia in 1918-19*

AGE	Elementary school grades										High school grades				Total
	Kind.	Prmr.	1	2	3	4	5	6	7	8	I	II	III	IV	
4.....	7	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
5.....	68	5	430	37	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	542
6.....	2	135	1,313	215	22	1	.....	.....	.....	.....	.....	.....	.....	.....	1,688
7.....	.....	111	1,665	566	179	19	.....	.....	.....	.....	.....	.....	.....	.....	2,540
8.....	.....	46	1,201	930	526	146	19	.....	.....	.....	.....	.....	.....	.....	2,870
9.....	.....	26	607	827	747	516	94	2	.....	.....	.....	.....	.....	.....	2,827
10.....	.....	8	471	618	698	660	317	52	4	.....	.....	.....	.....	.....	2,828
11.....	.....	5	232	406	672	672	497	176	39	1	.....	.....	.....	.....	2,702
12.....	.....	3	121	321	455	532	600	396	137	5	28	.....	.....	.....	2,598
13.....	.....	2	46	173	308	484	445	399	255	22	129	6	.....	.....	2,271
14.....	.....	1	.....	44	131	257	310	302	252	64	199	53	.....	.....	1,639
15.....	.....	.....	10	15	39	90	155	164	212	55	176	115	33	5	1,067
16.....	.....	.....	3	3	12	27	51	89	124	45	108	112	55	16	645
17.....	.....	.....	.....	2	6	5	11	26	28	13	54	77	54	30	306
18.....	.....	.....	.....	.....	2	3	.....	3	6	1	29	36	37	19	136
19.....	.....	.....	.....	.....	1	.....	3	.....	1	.....	3	5	8	10	33
20.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	1	3	6
Over 20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	3	6
Totals	77	342	6,123	4,157	3,800	3,413	2,503	1,619	1,059	206	729	404	197	84	24,714

See notes to Table 23.

TABLE 27

Showing the age-grade distribution of 12,607 white pupils and of 8,533 colored pupils in the one-room non-city schools of eighteen counties of Virginia 1918-19

Elementary school grades—White										Elementary school grades—Colored									
AGE	pr.	1	2	3	4	5	6	7	8	Total	Pr.	1	2	3	4	5	6	7	Total
5.....	37	185	52	3	1	.....	.....	.....	.....	222	21	72	3	3	.....	.....	.....	.....	96
6.....	85	833	247	61	5	.....	.....	.....	.....	974	47	407	15	3	.....	.....	.....	.....	472
7.....	104	994	377	252	55	1	.....	.....	.....	1,412	58	707	66	9	1	.....	.....	.....	841
8.....	69	705	377	252	201	3	.....	.....	.....	1,461	32	636	164	43	6	.....	.....	.....	881
9.....	40	431	350	376	201	39	3	.....	.....	1,439	23	489	224	119	31	6	.....	.....	892
10.....	28	291	270	374	228	128	16	.....	.....	1,435	16	365	289	197	78	12	.....	.....	959
11.....	13	148	146	275	370	212	75	8	.....	1,247	13	199	195	232	177	77	13	4	771
12.....	9	117	127	229	325	262	168	32	.....	1,269	9	206	206	232	177	77	13	8	924
13.....	5	40	86	125	266	232	219	95	3	1,071	7	98	134	190	225	115	22	5	796
14.....	2	24	41	80	157	217	210	115	2	848	7	77	91	169	175	161	53	15	748
15.....	.....	7	23	37	98	126	158	144	1	594	5	32	46	117	164	146	46	14	570
16.....	1	5	8	25	38	83	103	109	3	375	3	16	35	52	90	114	45	10	365
17.....	.....	2	1	2	12	30	35	56	.....	138	3	4	4	17	22	30	18	11	109
18.....	.....	.....	.....	3	6	7	22	43	.....	81	1	2	5	5	22	16	21	6	78
19.....	.....	.....	.....	5	2	5	7	11	.....	30	.....	.....	4	1	8	3	8	2	26
20.....	.....	.....	.....	1	2	3	1	3	.....	10	.....	.....	.....	.....	3	1	1	.....	5
Over 20	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	393	3,782	1,728	1,848	1,866	1,348	1,017	616	9	12,607	245	3,310	1,481	1,332	1,138	720	235	72	8,533

See notes to Table 23.

TABLE 28
Showing the grade-stay distribution of 44,941 white pupils in the non-city schools
of eighteen counties of Virginia in 1918-19

NUMBER OF YEARS ATTEND- ING SCHOOL BE- FORE AUGUST 1, 1918	Elementary school grades								High school grades				Total	
	Prmr.	1	2	3	4	5	6	7	8	I	II	III		IV
Less than 1..	780	4,256	106	22	11	2	3	.....	1	.....	.....	.....	.....	5,181
1 but not 2	473	3,162	1,954	162	26	16	5	.....	.....	.....	.....	.....	.....	5,198
2 but not 3	130	1,664	1,972	1,755	235	42	10	4	.....	.....	.....	.....	.....	5,812
3 but not 4	60	633	1,375	2,151	1,795	337	72	21	.....	1	.....	.....	.....	6,445
4 but not 5	6	206	474	1,162	1,948	1,565	439	66	2	4	.....	1	.....	5,873
5 but not 6	1	74	162	463	1,071	1,531	1,171	284	2	23	4	1	.....	4,787
6 but not 7	.....	29	43	198	453	913	1,189	938	19	175	20	6	11	3,994
7 but not 8	.....	13	16	76	211	347	620	924	41	526	141	19	20	2,954
8 but not 9	.....	4	9	36	65	182	303	514	40	420	389	112	36	2,110
9 but not 10	.....	2	1	6	39	58	135	270	35	188	266	276	82	1,358
10 but not 11	.....	.....	1	3	5	26	70	141	17	86	116	162	158	785
11 but not 12	.....	.....	.....	.....	1	3	22	59	8	19	40	45	76	273
12 but not 13	.....	.....	.....	1	1	5	14	27	1	11	14	15	21	110
13 but not 14	.....	.....	.....	.....	.....	.....	4	3	1	3	11	6	5	33
14 but not 15	.....	.....	.....	.....	.....	.....	2	3	.....	.....	1	1	1	8
15 but not 16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 or more....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	1,450	11,713	5,513	6,035	5,861	5,027	4,059	3,254	167	1,460	1,010	646	410	44,941

a. The figures printed in italics show the number of pupils for each grade who have attended school the normal number of years to reach the grades in which they were located before August 1, 1918.

b. There is an appreciable margin of error in this table, due to the fact that for some schools a few pupils were recorded as having attended school for a number of years, which really represented the number of years they had begun their education. That fact tends to give a more favorable appearance in 1918-19 after coming from other schools where they had begun their education. The figures given are sufficiently reliable to indicate the very great amount of over-stay in these schools.

TABLE 29
*Showing the grade-stay distribution of 45,781 white pupils in
 the schools of sixteen cities of Virginia in 1918-19*

NUMBER OF YEARS AT- TENDING SCHOOL BE- FORE AUG- UST 1, 1918	Elementary school grades								High school grades				Total			
	Kg.	Pr.	1	2	3	4	5	6	7	8	I	II		III	IV	
Less than 1	184	567	4,985	200	20	1	5,957
1 but not 2	44	71	1,633	3,317	452	34	6	5,557
2 but not 3	2	2	334	1,554	3,008	405	40	9	1	5,355
3 but not 4	66	409	1,600	2,853	727	111	12	1	5,779
4 but not 5	16	109	511	1,789	2,635	640	133	11	8	2	5,854
5 but not 6	13	19	113	559	1,567	1,968	635	109	52	5	5,043
6 but not 7	2	2	31	152	515	1,137	1,448	297	380	80	12	5	4,061
7 but not 8	.....	.....	.....	1	10	35	124	371	854	287	1,229	392	35	21	3,359
8 but not 9	.....	.....	.....	.....	.....	12	27	84	260	84	634	747	214	96	2,158
9 but not 10	.....	.....	.....	.....	.....	3	4	8	42	24	195	398	598	243	1,515
10 but not 11	.....	.....	.....	.....	.....	.....	1	1	11	.....	50	90	275	408	836
11 but not 12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	19	37	195	262
12 but not 13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1	2	34	40
13 but not 14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3
14 but not 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2
Totals.....	230	640	7,049	5,611	5,745	5,842	5,647	4,329	3,396	812	2,563	1,734	1,177	1,006	45,781	

See notes to Table 28.

Returns for four cities (including Richmond) were excluded because of errors in compilation.

TABLE 30

Showing the grade-stay distribution of 14,326 colored pupils in the non-city schools of seventeen counties of Virginia in 1918-19

NUMBER OF YEARS ATTENDING SCHOOL BEFORE AUGUST 1, 1918	Elementary school grades								High school grades		Total	
	Prmr.	1	2	3	4	5	6	7	8	I		II
Less than 1.....	162	1,614	23	13	3	4	2	.....	.....	.....	.....	1,821
1 but not 2.....	77	1,719	321	31	16	3	.....	.....	.....	.....	.....	2,170
2 but not 3.....	69	1,148	863	314	45	4	.....	.....	.....	.....	.....	2,444
3 but not 4.....	28	451	725	705	315	56	13	.....	.....	.....	.....	2,296
4 but not 5.....	11	159	336	549	538	239	46	.....	.....	.....	.....	1,882
5 but not 6.....	6	95	141	324	423	343	154	19	.....	.....	.....	1,505
6 but not 7.....	6	25	64	110	269	235	139	79	.....	11	.....	939
7 but not 8.....	6	17	21	53	153	174	130	70	.....	15	.....	641
8 but not 9.....	4	5	20	23	58	78	70	51	.....	4	.....	321
9 but not 10.....	1	2	6	15	26	44	31	27	.....	2	.....	163
10 but not 11.....	2	.....	3	9	19	21	22	12	.....	4	.....	94
11 but not 12.....	1	.....	.....	.....	5	8	7	6	.....	5	.....	33
12 but not 13.....	.....	.....	.....	.....	.....	2	2	2	.....	.....	.....	6
13 but not 14.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	2
14 but not 15.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	2
15 but not 16.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16 or more.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7
Totals.....	373	5,235	2,523	2,147	1,870	1,211	617	278	15	45	12	14,326

See notes to Table 28.

TABLE 31
*Showing the grade-stay distribution of 16,647 colored pupils in the
 schools of sixteen cities of Virginia in 1918-19*

NUMBER OF YEARS ATTEND- ING SCHOOL BEFORE AUG. 1, 1918	Elementary school grades										High school grades				Total
	Prmr.	1	2	3	4	5	6	7	8		I	II	III	IV	
Less than 1...	206	2,039	12	1	...	...	...	...	...	...	...	...	...	...	2,258
1 but not 2	25	1,666	998	40	4	...	...	...	...	...	...	...	...	...	2,733
2 but not 3	9	464	1,003	824	60	...	...	...	...	...	...	...	...	...	2,360
3 but not 4	...	101	433	990	833	65	1	2	1	...	...	...	...	...	2,426
4 but not 5	...	27	222	380	717	674	38	13	4	...	...	...	...	...	2,075
5 but not 6	...	3	76	134	401	542	492	35	1	...	...	...	...	...	1,684
6 but not 7	...	1	42	48	181	292	333	311	3	...	...	...	...	...	1,228
7 but not 8	...	...	6	15	66	97	173	218	55	...	...	...	...	...	737
8 but not 9	...	...	2	3	24	41	41	102	55	...	...	...	...	...	450
9 but not 10	...	...	1	1	6	17	19	32	40	...	...	...	...	...	298
10 but not 11	...	...	...	...	...	2	1	3	23	...	...	...	...	...	137
11 but not 12	...	...	1	...	...	...	...	1	15	...	...	...	...	...	100
12 but not 13	...	...	...	...	1	...	...	...	...	...	...	...	...	...	38
13 but not 14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	46
14 but not 15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28
15 but not 16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15
16 or more...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	34
Totals.....	240	4,301	2,796	2,436	2,294	1,730	1,098	717	197		411	265	119	43	16,647

See notes to Table 28.

TABLE 32

Showing the grade-stay distribution of 11,534 white pupils in one-room non-city schools in eighteen counties of Virginia in 1918-19

NUMBER OF YEARS ATTENDING SCHOOL BEFORE AUGUST 1, 1918		Elementary school grades								
	Prmr.	1	2	3	4	5	6	7	8	Total
Less than 1.....	222	1,278	34	8	8	1	2	.....	.....	1,553
1 but not 2.....	106	1,050	306	49	14	8	1	.....	.....	1,534
2 but not 3.....	30	633	509	346	49	15	.....	1	.....	1,583
3 but not 4.....	25	241	416	550	349	60	9	6	.....	1,656
4 but not 5.....	1	85	164	419	529	237	56	6	1	1,498
5 but not 6.....	.....	41	74	199	378	381	154	34	.....	1,261
6 but not 7.....	.....	14	27	100	193	292	263	122	2	1,013
7 but not 8.....	.....	8	9	40	112	156	201	161	2	689
8 but not 9.....	.....	1	7	15	35	87	131	122	2	400
9 but not 10.....	.....	2	1	5	20	37	61	65	2	193
10 but not 11.....	.....	.....	1	2	1	12	40	31	.....	87
11 but not 12.....	.....	.....	.....	.....	1	4	11	20	.....	36
12 but not 13.....	.....	.....	.....	.....	1	4	9	10	.....	24
13 but not 14.....	.....	.....	.....	.....	.....	.....	2	2	.....	4
14 but not 15.....	.....	.....	.....	.....	.....	.....	2	1	.....	3
Totals.....	384	3,353	1,548	1,733	1,690	1,294	942	581	9	11,534

See notes to Table 28.

TABLE 32-B
*Showing the grade-stay distribution of 7,801 colored pupils in one-room non-city
 schools in eighteen counties of Virginia in 1918-19*

Elementary school grades									
	Prmr.	1	2	3	4	5	6	7	Total
Less than 1.....	76	977	15	7	2	3	.....	.....	1,080
1 but not 2.....	32	926	170	14	7	4	.....	.....	1,153
2 but not 3.....	26	643	469	148	24	3	.....	.....	1,314
3 but not 4.....	15	277	388	402	138	13	1	.....	1,238
4 but not 5.....	8	100	204	328	299	104	4	1	1,069
5 but not 6.....	6	60	74	217	223	171	23	3	824
6 but not 7.....	6	16	28	66	166	135	54	14	489
7 but not 8.....	6	15	15	33	96	88	52	18	325
8 but not 9.....	4	5	11	12	37	52	33	20	167
9 but not 10.....	1	2	3	12	16	22	10	6	72
10 but not 11.....	2	.....	3	5	8	15	11	5	49
11 but not 12.....	1	.....	.....	.....	3	5	6	4	19
12 but not 13.....	.....	.....	.....	.....	.....	.....	1	1	2
13 but not 14.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 but not 15.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	183	3,021	1,380	1,244	1,019	615	254	85	7,801

See notes to Table 28.

TABLE 33

Showing for each age group the per cent in the standard grade for that age

	AGES										
	7	8	9	10	11	12	13	14	15	16	17
WHITE											
Virginia Standard:											
Counties.....	63.7	29.9	27.4	25.8	22.3	18.2	14.5	10.1	9.7	10.5	10.6
Cities.....	48.0	33.4	32.0	32.0	34.5	29.7	26.8	27.3	27.4	25.2	42.8
National Standard:											
Counties.....	82.3	21.7	19.6	16.4	11.4	8.8	7.2	4.5	3.5	3.9	4.0
Cities.....	77.5	38.8	33.5	30.5	29.4	21.2	19.4	16.2	14.3	14.1	17.1
COLORED											
Virginia Standard:											
Counties.....	82.1	20.3	15.0	10.5	6.3	3.4	1.8	.4	.....	.....	.....
Cities.....	65.5	32.4	26.1	23.3	18.4	15.2	11.2	12.1	10.8	8.5	9.8
National Standard:											
Counties.....	88.9	8.4	6.0	3.9	1.9	1.5	.5	.4	.....	.....	.....
Cities.....	78.0	22.3	18.3	18.3	11.2	6.5	5.2	5.6	5.0	3.1	2.5

Explanation—the Virginia Standard assumes that children enter school at the age of seven. On that basis 63.7 per cent of the seven-year-old white pupils in county schools are found in the first grade—the standard grade for that age; 29.9 per cent in the second grade—the standard grade for that age, etc., etc.

The National Standard assumes that children enter school at the age of six. On that basis 82.3 per cent of the seven-year-old white pupils in county schools are found in the second grade—the standard grade for that age, etc., etc.

TABLE 34

Showing for each grade the per cent of pupils in that grade who are of normal age

GRADES												
	1	2	3	4	5	6	7	I	II	III	IV	Total
WHITE												
Virginia Standard:												
Counties.....	26.6	24.6	21.3	20.4	20.5	20.5	18.1	24.5	25.8	31.5	28.0	23.6
Cities.....	29.0	30.5	28.6	28.5	28.4	30.6	31.1	30.7	33.1	34.9	36.8	30.6
National Standard:												
Counties.....	24.0	16.9	15.5	12.7	11.0	9.9	10.0	24.5	25.8	31.5	28.0	16.9
Cities.....	37.9	33.1	29.4	27.2	26.6	22.8	25.1	30.7	33.1	34.9	36.8	29.8
COLORED												
Virginia Standard:												
Counties.....	22.3	12.0	10.6	9.0	6.7	8.3	8.7	11.8	.....	.....	.....	12.9
Cities.....	27.2	22.4	19.6	19.0	19.8	24.5	24.1	27.3	28.5	27.9	35.7	23.6
National Standard:												
Counties.....	13.4	4.8	4.2	3.2	2.5	3.1	3.0	11.8	.....	.....	.....	5.5
Cities.....	21.4	13.6	13.8	15.1	12.7	10.9	13.0	27.3	28.5	27.9	35.7	15.5

TABLE 35
Showing per cents of pupils of normal stay in each grade

	GRADES											
	1	2	3	4	5	6	7	I	II	III	IV	
WHITE												
	Counties.....	36.3	24.6	29.1	30.6	31.3	28.9	28.8	36.0	38.5	42.7	38.5
	Cities.....	70.7	59.1	52.3	48.8	46.7	45.5	42.6	48.0	43.1	50.8	40.6
COLORED												
	Counties.....	30.8	12.7	14.6	16.8	19.7	24.9	28.4	33.3	25.0	.....	.....
	Cities.....	47.4	35.7	33.9	36.3	38.9	44.8	43.4	26.0	26.4	22.7	7.0

TABLE 36

*Showing per cents of pupils at standard grade for their length of stay in school
(Stay as of before the beginning of the school year 1918-19)*

	YEARS SPENT IN SCHOOL										
	0	1	2	3	4	5	6	7	8	9	10
WHITE											
Counties.....	82.1	26.5	30.2	27.8	26.6	24.5	23.5	17.8	18.4	20.3	20.1
Cities.....	83.7	59.7	56.2	49.4	44.8	39.0	35.6	36.6	34.6	39.5	48.8
COLORED											
Counties.....	88.6	14.8	12.8	13.7	12.7	10.2	8.4	2.3	.9	.....	.....
Cities.....	90.3	36.5	34.9	34.3	32.5	29.2	25.3	14.5	15.6	9.1	7.0

TABLE 37

Showing the per cents of pupils of over-stay, normal-stay, and under-stay in school for the grades in which they are located in eighteen counties and all cities (except Richmond) of Virginia in 1918-19

STATUS OF PUPILS	COUNTY SCHOOLS					CITY SCHOOLS		
	One room	Two room	Three room	Four rooms and over	All county	Under 10,000 population	Over 10,000 population	All city
WHITE								
1 year over-stay.....	30.78	31.98	33.19	32.40	31.98	26.86	26.17	26.32
2 years over-stay.....	21.60	19.68	17.62	14.08	17.42	9.74	7.36	7.87
3 or more years over-stay.....	9.64	15.44	13.74	6.89	9.87	1.56	2.11	2.00
Total over-stay.....	62.02	67.11	64.55	53.37	59.27	38.16	35.64	36.19
Total normal-stay.....	34.82	28.71	30.54	40.19	35.71	51.19	52.95	52.57
Total under-stay.....	3.16	4.18	4.91	6.44	5.02	10.64	11.41	11.24
1 year under-stay.....	2.46	3.50	4.03	5.47	4.18	9.05	9.87	9.70
2 years under-stay.....	.45	.57	.66	.77	.64	1.43	1.37	1.38
3 or more years under-stay.....	.25	.11	.22	.20	.20	.16	.17	.16
COLORED								
1 year over-stay.....	30.56	31.80	38.74	30.11	31.46	30.56	35.15	34.55
2 years over-stay.....	23.17	25.00	22.90	20.05	23.39	16.15	14.46	14.68
3 or more years overstay.....	22.84	22.15	15.17	8.18	20.73	20.67	7.36	9.11
Total over-stay.....	76.57	78.95	76.81	58.33	75.58	67.38	56.97	58.34
Total normal-stay.....	21.66	18.24	21.35	40.09	22.36	25.43	42.06	39.88
Total under-stay.....	1.77	2.81	1.84	1.58	2.06	7.19	0.97	1.78
1 year under-stay.....	1.32	1.86	1.73	1.58	1.53	6.04	.96	1.62
2 years under-stay.....	.31	.70	.00	.00	.37	.83	.01	.12
3 or more years under-stay.....	.14	.25	.11	.00	.16	.32	.00	.04

TABLE 38

Showing the approximate per cent of schools of various types whose programs show no special provision for certain subjects set by the State Course of Study.

SUBJECT	One room, per cent	Two or three rooms, per cent	Four rooms and over, per cent
Writing.....	20	0	0
Hygiene.....	40	6	0
Music.....	80	77	60
Drawing.....	60	52	35
Nature Study.....	84	81	50
Agriculture.....	94	84	80

Cooking, sewing, gardening, and manual training are rarely found in the non-city white schools.

TABLE 39

Showing the recitation time allotment in non-city white schools for grades one, five, and seven. Figures represent the median allotment in minutes per school day for the total recitation time of pupils in each of these grades. The average length of the school day in minutes is 330.

	One room	Two rooms	Three rooms	Four rooms	Five to seven rooms
Grade 1..... {	55 20 135	95 35 150	103 76 200	111 64 150	170 77 270
Grade 5..... {	90 50 151	113 87 187	140 92 205	170 115 270	210 165 281
Grade 7..... {	95 57 135	124 90 185	161 70 230	176 130 235	217 153 295

Bold face figures in the upper centre of each space represent medians; figures in lower left corners represent the minimum found; figures in the lower right corners represent the maximum found.

TABLE 40

Showing for non-city schools of various types the percentages of schools having various time allotments per week in arithmetic, grades one, five, seven.

MINUTES PER WEEK	One room, per cent	Two rooms, per cent	Three rooms, per cent	Four rooms, per cent	Five to seven rooms, per cent
Grade 1:					
Less than 25..	8	0	0	0	0
25- 45.....	12	0	0	0	0
50- 70.....	43	12	4	9	0
75- 90.....	23	33	34	33	0
100-125.....	14	44	46	37	49
150 and over..	0	11	16	21	51
Grade 5:					
Less than 25..	0	0	0	0	0
25- 45.....	2	0	0	0	0
50- 70.....	13	6	0	0	0
75- 90.....	55	6	11	0	0
100-125.....	20	67	56	30	0
150 and over..	10	21	33	70	100
Grade 7:					
Less than 25..	0	0	0	0	0
25- 45.....	4	0	0	0	0
50- 70.....	9	4	0	0	0
75- 90.....	50	12	0	0	0
100-125.....	23	42	24	13	13
150 and over....	14	42	76	87	87

TABLE 50

(Tables 41-49 are incorporated in the text of Chapter VI.)

Showing for the State the number of pupils per teacher; (a) of the total school population, (b) of the school enrolment, (c) of the number in average daily attendance.

SCHOOL YEAR	Pupils per teacher on the basis of								
	School population			School enrolment			Average daily attendance		
	White.	Colored.	Total.	White.	Colored.	Total.	White.	Colored.	Total.
1909-10...	50	91	59	35	50	29	23	31	25
1914-15...	44	84	53	35	49	39	24	31	25
1915-16...	42	79	50	34	48	37	24	32	20
1916-17...	.....	.....	.....	33	48	37	23	30	25
1917-18...	.....	.....	.....	32	45	35	22	29	23

Table compiled from figures given in the Reports of the (Virginia) Superintendent of Public Instruction, 1916-17 and 1917-18, pages 147-149 of the Report for 1916-17.

TABLE 51

Comparing the Virginia record with the National record and with records in various sections of the country for the number of pupils per teacher in 1915-16: (a) on the basis of the number of children of ages five to eighteen in the population, (b) on the basis of school enrolment, (c) on the basis of average daily attendance.

RECORDS	Pupils per teacher on the basis of		
	Children of ages 5-18	Pupils enrolled	Average daily attendance
Virginia.....	51	37	26
The United States.....	43	33	25
North Atlantic States....	44	32	26
North Central States....	35	28	22
South Atlantic States....	53	40	28
South Central States....	56	42	28
Western States.....	33	28	22

Table compiled from figures given in Report of the (U. S.) Commissioner of Education, 1917, pp. 68, 73, 76.

TABLE 52

Showing for 1917-18 in Virginia the number of counties having various records for the number of pupils per teacher: (a) on the basis of school population, (b) on the basis of school enrolment, (c) on the basis of average daily attendance.

PUPILS PER TEACHER	On the basis of school population		On the basis of pupils enrolled		On the basis of average daily attendance	
	White	Colored	White	Colored	White	Colored
11- 15.....					23	3
16- 20.....			6		48	21
21- 25.....	5		24	3	19	35
26- 30.....	14		34	5	8	22
31- 35.....	20	2	17	13	1	10
36- 40.....	24	2	10	26		
41- 45.....	12	6	4	22		4
46- 50.....	14	4	2	9	1	
51- 55.....	5	6	2	6		1
56- 60.....	1	5		5		
61- 65.....	4	7		3		1
66- 70.....		14	1	2		
71- 75.....	1	7				
76- 80.....		7		1		
81- 85.....		6				
86- 90.....		6		1		
91- 95.....		5				
96-100.....		3		1		
101-125.....		7				
126-150.....		5				
151-175.....		4				
176-200.....		1				

Table compiled from records of the State Department of Education
No colored schools in Buchanan, Craig, and Dickenson Counties.

TABLE 54

Showing the decrease in the number and proportion of men teachers in Virginia from 1871 to 1918

YEAR	White		Colored		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
1871.....	1,616	64.1	325	67.4	1,941	64.6
1880.....	2,478	60.8	531	67.6	3,009	61.9
1890.....	2,189	39.4	964	46.6	3,153	41.5
1900.....	1,974	29.2	842	35.2	2,816	30.8
1910.....	1,527	19.0	535	22.4	2,062	20.0
1917.....	1,629	15.1	455	15.3	2,084	15.2
1918.....	1,372	12.3	415	14.2	1,787	12.9

Table compiled from figures given in the Reports of the (Virginia) Superintendent of Public Instruction, 1916-17, p. 149, and 1917-18, p. 84.

TABLE 55

Showing the proportions of teachers (in percentages) having had various terms of teaching experience before this year (1918-19) in non-city schools.

EXPERIENCE IN YEARS	County schools of all types		One-room schools		High schools
	White	Colored	White	Colored	White only
0.....	22.3	20.1	35.9	22.9	15.8
1.....	16.4	11.0	15.3	10.9	11.2
2.....	10.4	7.9	9.3	8.3	8.3
3.....	8.3	5.4	6.5	4.7	7.5
4.....	7.3	5.4	6.0	6.3	4.1
5.....	6.3	6.5	5.6	7.4	4.7
6-10.....	14.1	18.6	10.0	15.6	22.6
11-15.....	6.0	6.5	4.4	7.3	6.8
Over 15.....	8.9	18.6	7.0	16.6	18.5
Total number.	1,461	354	432	192	295
Median experience, years.....	1.4	4.0	.9	3.5	4.6

Table compiled from selected returns.

TABLE 56

Showing for eighteen counties and nineteen cities of Virginia the relative numbers and proportions of elementary-school teachers who have received various amounts of education and professional training. Figures for 1918-19

HIGHEST EDUCATION RECEIVED	White				Colored			
	Counties		Cities		Counties only			
	Number	Per cent	Cumulative per cent	Number	Per cent	Cumulative per cent	Number	Per cent
Less than High School.....	140	9.6	9.6	8	.6	.6	36	10.0
High School 1.....	55	3.5	13.1	3	.2	.8	28	7.8
High School 2.....	137	9.4	22.5	15	1.1	1.9	73	20.3
High School 3.....	148	10.2	32.7	54	3.9	5.8	45	12.5
High School 4.....	598	41.0	73.7	420	30.5	36.3	98	27.2
College 1.....	39	2.7	76.4	49	3.6	39.9	6	1.7
College 2.....	46	3.2	79.6	95	6.9	46.8	2	.5
College 3.....	3	.2	79.8	46	3.4	50.2	0	.0
College 4.....	17	1.2	81.0	62	4.4	54.6	2	.5
Graduate Study.....	2	.2	81.2	12	.9	55.5	0	.0
Normal School 1.....	139	9.5	90.7	92	6.7	62.2	61	16.9
Normal School 2.....	128	8.8	99.5	451	32.8	95.0	8	2.3
Normal School 3.....	3	.2	99.7	46	3.4	98.4	0	.0
Normal School 4.....	4	.3	100.0	22	1.6	100.0	1	.3
Total.....	1,459	100.0	100.0	1,375	100.0	100.0	360	100.0
Median years above elementary school.....		3.08			5.32			2.59

Table compiled from survey returns (Form T-I-1), these returns, however, being checked and corrected in conferences with the certifying officer of the State Department from official records on teachers' certificates and in the files of the State Department in the case of each teacher. For cities, no principals, substitutes, "cadet," or special teachers are included in this table. The terms college, university, normal school, etc., for colored teachers especially, are so ambiguous in Virginia, that careful analysis and evaluation were necessary. In each case the official standards of the State Department were employed. The above table's figures do not allow any special credit for the relatively small proportion of teacher training classes in high schools, except for regular high-school credit. The above figures are generous rather than severe in ratings.

TABLE 57

Showing the training of teachers in the entire State according to the figures given on page 97 of the 1917-18 Report of the (Virginia) Superintendent of Public Instruction. Figures for the number and per cent of teachers having had various kinds of education and professional training.

EDUCATION AND TRAINING	Number	Per cent	Cumulative per cent
Graduates of State Normal Schools (white).	1,811	13.0	13.0
Graduates of Univ. Va., V. M. I., V. P. I. (white).....	191	1.4	14.4
Graduates of Petersburg Normal and Hampton (colored).....	824	5.9	20.3
Graduates of other Virginia colleges and normals.....	1,152	8.3	28.6
Graduates of out-of-State colleges and normals.....	554	3.9	32.5
Not graduates but attending college one year or more.....	1,230	8.9	41.4
Normal training departments in high schools	918	6.6	48.0
Four years of high school or less.....	7,224	52.0	100.0
Total.....	13,904	100.0	100.0

TABLE 58

Showing for 1918-19 the relative numbers and percentages of white non-city high-school teachers in eighteen counties of Virginia having various amounts of education and training.

EDUCATION AND TRAINING	Number				Cumulative per cent
	Men	Women	Total	Per cent	
Less than High school I.....		1	1	.4	.4
High School I.....				.0	.4
High School II.....		3	3	1.1	1.5
High School III.....	2		2	.7	2.2
High School IV.....	1	32	33	12.5	14.7
College 1.....	1	8	9	3.4	18.1
College 2.....	21	33	54	20.4	38.5
College 3.....	6	8	14	5.3	43.8
College 4.....	31	41	72	27.2	71.0
Normal School 1.....	1	6	7	2.6	73.6
Normal School 2.....	5	64	69	26.0	99.6
Normal School 3.....		1	1	.4	100.0
Total.....	68	197	265	100.0	100.0
Median years of education above the elementary school,					5.63

TABLE 59

Showing the average annual salaries of teachers in Virginia from 1913 to 1918

SCHOOL YEAR	White			Colored			White and colored		
	Counties.	Cities.	State.	Counties.	Cities.	State.	Counties.	Cities.	State.
1913-14...	\$293	\$662	\$352	\$148	\$395	\$189	\$262	\$603	\$317
1914-15...	308	665	368	158	399	200	276	600	332
1915-16...	315	672	379	161	392	206	283	608	342
1916-17...	333	650	397	169	396	216	299	594	358
1917-18...	351	658	423	175	391	241	315	673	385

Table compiled from data given in the Reports of the (Virginia) Superintendent of Public Instruction.

TABLE 60

Comparing teachers' salaries in Virginia with those in other parts of the country, 1915-16

	Average monthly salary	Average number months in school term	Average annual salary
Virginia.....	\$48.50	7.05	\$341.90
United States.....	70.21	8.02	563.08
North Atlantic States....	80.15	9.09	728.56
North Central States.....	68.14	8.36	569.65
South Atlantic States....	50.65	6.76	342.39
South Central States.....	61.18	6.76	413.58
Western States.....	95.05	8.39	797.47
Rank of Virginia.....	43	37	42

Table compiled from figures given in the Report of the Commissioner of Education, 1917, Vol. II, p. 77.

TABLE 61

Showing for 1917-18 the number of counties having various records for the average annual salaries of teachers

SALARY	White	Colored
Under \$100.....		1
\$100-\$125.....		6
126- 150.....		19
151- 175.....		24
176- 200.....		19
201- 225.....	3	13
226- 250.....	6	8
251- 275.....	9	1
276- 300.....	8	1
301- 325.....	15	3
326- 350.....	10	
351- 375.....	15	
376- 400.....	9	1
401- 425.....	4	1
426- 450.....	4	
451- 475.....	6	
476- 500.....	3	
501- 525.....	5	
526- 550.....	1	
551- 575.....	1	
576- 600.....	1	
Average.....	\$348.94	\$182.94
Median.....	\$348.76	\$177.48

Table compiled from the Report of the (Virginia) Superintendent of Public Instruction, 1917-18, pp. 83-84.

Average length of term in white schools, 7.2 months.

Average monthly salary in white schools, \$48.46.

Average length of term in colored schools, 6.1 months.

Average monthly salary in colored schools, \$29.99.

TABLE 62

Showing for 1918-19 the relative number of elementary-school teachers contracted with for the annual salaries indicated

ANNUAL SALARY	Counties		Cities	
	White	Colored	White	Colored
Under \$150.....	1	.....	3	.....
\$ 150-\$ 199.....	14	40	4	7
200- 249.....	186	161	8	1
250- 299.....	188	99	4	11
300- 349.....	178	52	10	60
350- 399.....	313	20	8	28
400- 449.....	229	19	19	87
450- 499.....	198	10	95	109
500- 549.....	160	4	97	95
550- 599.....	67	1	110	28
600- 649.....	29	1	146	38
650- 699.....	16	.....	96	12
700- 749.....	2	.....	92	7
750- 799.....	4	1	80	.....
800- 849.....	4	1	164	3
850- 899.....	.....	.....	68	1
900- 949.....	3	.....	174	.....
950- 999.....	.....	.....	28	.....
1,000- 1,049.....	1	.....	75	.....
1,050- 1,099.....	.....	.....	13	.....
1,100- 1,149.....	.....	.....	18	1
1,150- 1,199.....	.....	.....	12	.....
1,200- 1,249.....	.....	.....	11	.....
1,250- 1,299.....	.....	.....	2	.....
1,300- 1,349.....	.....	.....	.....	.....
1,350- 1,399.....	.....	.....	4	.....
1,400- 1,449.....	.....	.....	.....	.....
1,450- 1,499.....	.....	.....	1	.....
1,500- 2,000.....	.....	.....	31	.....
Total.....	1,593	409	1,373	488

Table compiled from figures on State Department Form S. No. 4 for schools in all parts of the State. Among the county teachers considered were 74 men and 1,519 women.

TABLE 63

Showing for 1918-19 the relative number of high-school teachers (white only) contracted with for the annual salaries indicated

ANNUAL SALARY	Counties		Cities	
	Men	Women	Men	Women
\$ 250-\$ 299.....			1	
300- 349.....				1
350- 399.....		5		9
400- 449.....		11		2
450- 499.....	1	18	1	1
500- 549.....	3	31		7
550- 599.....		35		19
600- 649.....	5	41	1	48
650- 699.....	2	29		29
700- 749.....	1	18		17
750- 799.....	2	6		19
800- 849.....	5	10	1	35
850- 899.....	6			18
900- 949.....	3	1	3	48
950- 999.....	4		2	46
1,000- 1,049.....	3		3	18
1,050- 1,099.....	3	1	6	33
1,100- 1,149.....	3			20
1,150- 1,199.....	2		3	14
1,200- 1,249.....	5		3	7
1,250- 1,299.....	4		8	16
1,300- 1,349.....			2	1
1,350- 1,399.....	6		10	
1,400- 1,449.....	1		4	1
1,450- 1,499.....	4		5	
1,500- 2,000.....	13		14	1
Over 2,000.....			11	2
Total.....	76	206	78	410

Table compiled from figures on the State Department Form S. No. 4, for schools in all parts of the State.

TABLE 64

Showing the enrolments for the regular session of 1917-18 in the State Normal Schools.

	Farmville.	Fredericksburg.	Harrisonburg.	Radford.	Total.
Normal Students.....	416	126	241	252	1,035
High-School Pupils.....	207	124	35	104	470
Total.....	623	250	276	356	1,505

TABLE 65

Graduates of the State Normal Schools for Women 1914-18.

NORMAL SCHOOL	Teaching 1918-19	Not Teaching 1918-19	Total
Farmville.....	552	163	715
Fredericksburg.....	168	36	204
Harrisonburg.....	209	117	326
Radford.....	122	15	137
Total.....	1,051	331	1,382

TABLE 66

*Showing the relative amount of time devoted to work in the high school and normal professional departments of the four State Normal Schools for Women, 1918-19.**

NORMAL SCHOOL	Number of minutes devoted per week to instruction in			Per cent of time devoted to work in the normal profes- sional de- partment
	Normal depart- ment.	High school depart- ment	Both depart- ments	
Farmville.....	15,270	6,630	21,900	69.7
Fredericksburg.....	6,215	8,188	14,398	43.2
Harrisonburg.....	9,423	400	9,823	95.9
Radford.....	8,195	5,018	13,213	62.0
Total.....	39,103	20,231	59,334	65.9

* Instruction in classroom only considered here.

TABLE 67

Showing the amount of observation and practice teaching by graduates of the class of 1918 in the four State Normal Schools for Women. Figures in terms of the number of graduates having observed and having taught various numbers of recitations. (c)

NUMBER OF RECITATIONS EACH	Observation					Practice teaching				
	Farmville.	Fredericksburg.	Harrisonburg.	Radford.	Total.	Farmville.	Fredericksburg.	Harrisonburg.	Radford.	Total.
1- 25.....			2		2					
26- 50.....	10	35	15	45	105					
51- 75.....	19		5		24			21		21
76-100.....	5		2		7	8		13		21
101-125.....	8				8	16		10	45	71
126-150.....	19	11	2		32	40		20		60
151-175.....	7		2		9	17		5		22
176-200.....	26		1		27	20	11	1		32
201-225.....	5		1		6	2				2
226-250.....			12		12	1				1
251-275.....	2				2					
276-300.....	3		3		6		35			35
Over 300.....			25		25					
Total.....	104 ^a	46	70 ^b	45	265	104 ^a	46 ^b	70	45	265

^a Records not reported for 60 graduates.

^b Five graduates trained in the institutional household arts course not included here.

^c As reported by the presidents or registrars of the schools.

TABLE 68
Showing the training school facilities in the normal schools of Virginia, 1918-19

NAME OF SCHOOL	Grades—Number of classes								Grades—Number of pupils							
	Kg.								Kg.							
	1	2	3	4	5	6	7	Total	1	2	3	4	5	6	7	Total
Farmville.....	4	3	3	2	2	2	2	21	55	56	41	54	24	23	32	339
Fredricksburg.....	....	4	4	2	2	2	....	16	....	146	124	108	98	80	....	626
Harrisonburg.....	2	7	3	6	6	5	6	39	82	178	95	139	98	84	90	883
Radford.....	....	1	1	1	1	1	1	7	....	40	55	55	63	46	32	352
Total.....	6	15	11	11	11	10	9	83	137	420	315	356	283	233	154	2,200

TABLE 69

*Showing the education and training of instructors in the four
State Normal Schools for Women, 1918-19*

NORMAL SCHOOL	Number of instructors			College degrees				Normal School (a) Graduates.	Summer Sessions College or Normal School.
	Men.	Women.	Total.	Ph.D.	M.A.	B.A.	B.S.		
Farmville.....	5	32	37	2	8	5	8	13	27
Fredericksburg.....	7	15	22	....	6	4	2	10	8
Harrisonburg.....	4	15	19	2	3	3	7	4	11
Radford.....	6	15	21	....	3	3	3	12	12
Total.....	22	77	99	4	20	16	20	39	58

^a This column includes only those not having other degrees. Practically all instructors have had some professional training either in normal schools or at special institutions providing for professional training.

TABLE 70

Showing the teaching experience of instructors in the four State Normal Schools for Women, 1918-19

NUMBER OF YEARS' EXPERIENCE IN TEACHING	Private schools.	Primary or rural schools.	High school.	Normal school		College or university.
				In Virginia.	Outside of Virginia.	
Farmville Normal School						
1- 5.....	12	12	7	19	7	3
6-10.....	5	2	4	4	2	2
11-15.....	1	5	.....	2	.....	.....
16-20.....	2	1	.....	1	.....	1
Over 20.....	.....	.....	.....	3	.....	.....
Total.....	20	20	11	29	9	6
Fredericksburg Normal School						
1- 5.....	9	7	5	12	3	1
6-10.....	1	3	3	4	1	3
11-15.....	.....	1	2	.....	.....	.....
Total.....	10	11	10	16	4	4
Harrisonburg Normal School						
1- 5.....	4	8	2	7	1	7
6-11.....	2	1	2	6	.....	2
11-15.....	1	.....	1	1	.....	.....
16-20.....	.....	.....	.....	1	.....	1
Total.....	7	9	5	15	1	10
Radford Normal School						
1- 5.....	2	6	5	10	1	1
6-10.....	1	1	1	7	.....	2
11-16.....	.....	2	1	1	.....	.....
16-20.....	.....	.....	.....	.....	.....	.....
Over 20.....	1	.....	.....	.....	.....	1
Total.....	4	9	7	18	1	3
Grand Total..	41	49	33	78	15	23

TABLE 71
Showing the distribution of instructors' salaries in the normal schools of Virginia, 1917-18

SALARY	Farmville		Fredericksburg		Harrisonburg		Radford		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
\$2,400-\$2,599.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
2,200-2,399.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
2,000-2,199.....	2	.....	.....	.....	2	.....	.....	.....	4	.....
1,800-1,999.....	3	.....	1	.....	1	.....	3	.....	8	.....
1,600-1,799.....	1	.....	.....	.....	.....	1	1	.....	2	1
1,400-1,599.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1,200-1,399.....	1	13	.....	9	1	4	.....	1	2	27
1,000-1,199.....	.....	15	1	2	.....	4	.....	9	1	30
800-999.....	.....	3	.....	.....	.....	4	2	1	2	8
600-799.....	.....	.....	.....	4	.....	2	.....	.....	.....	6
400-599.....	.....	1	.....	1	.....	7	.....	.....	.....	9
200-399.....	.....	1	1	.....	.....	3	.....	8	1	12
Total.....	7	33	5	16	4	25	6	19	22	93

TABLE 72

Showing the relative numbers and percentages of Virginia teachers holding certificates of various kinds in 1918-19

CERTIFICATES	Number			Per cent		
	White	Colored	Total	White	Colored	Total
Collegiate						
Professional...	18	1	19	1.3	.1	.8
Collegiate.....	106	4	110	7.5	.4	4.7
Normal						
Professional...	197	24	221	13.9	2.6	9.5
Elementary						
Professional...	333	254	587	23.5	27.5	25.1
Special.....	168	25	193	11.9	2.7	8.5
First Grade.....	253	178	431	17.9	19.2	18.4
Second Grade...	171	232	403	12.1	25.1	17.2
Local Permit....	168	207	375	11.9	22.4	16.0
Totals.....	1,414	925	2,339	100.0	100.0	100.0

Table compiled from a random selection of more than ten per cent of all white teachers and more than twenty per cent of all colored teachers. The fact that the certificate system is changing and that the revaluation of certificates is not complete prevents us from using complete figures. For proportions, however, the figures given are just as accurate a measure of teachers' qualifications as the complete statistics would give.

TABLE 73

Showing the number of counties with various percentages of their teachers holding "professional" certificates in 1917-18

PER CENT OF TEACHERS HOLDING PROFESSIONAL CERTIFICATES	Number of counties
0.....	1
1-10.....	6
11-20.....	12
21-30.....	12
31-40.....	18
41-50.....	11
51-60.....	22
61-70.....	6
71-80.....	7
81-91.....	5

Table compiled from figures given on page 93 of the Report of the (Virginia) Superintendent of Public Instruction, 1917-18.

TABLE 74

Showing the distribution of certificates for all teachers in Virginia in 1917-18, according to the Report of the Superintendent of Public Instruction.

KIND OF CERTIFICATE	White, per cent	Colored, per cent	Total, per cent
Higher than first grade.....	49.2	33.4	45.8
First grade.....	31.2	26.4	30.1
Second grade.....	13.4	18.2	14.4
Third grade and local permits.....	6.2	22.0	9.7

Table compiled from figures given on page 92 of the Report of the (Virginia) Superintendent of Public Instruction.

TABLE 75
Present Certifying requirements compared

TYPE OF CERTIFICATE	Granted on the basis of creden- tials or examina- tions.	Minimum years of education above elementary school required.	Minimum years of professional training re- quired.	Valid for teaching in grades.	Number of years valid on original issuance.	Number of years valid by re- newal. ^a
(1) Collegiate Professional...	Credentials	8	9 ses'n hrs.	Unlimited	10	Unlimited
(2) Collegiate.....	Credentials	8	None	Unlimited	5	Unlimited ^b
(3) Normal Professional.....	Credentials	6	2 years	Grades 1-7 ^c	10	Unlimited
(4) Elementary Professional..	Credentials	4½	½ year	Grades 1-7 ^d	6	Unlimited
(5) Special.....	Credentials	^d	^d		6	Unlimited
(6) First Grade.....	Credentials	2	None	Grades 1-7	5	Unlimited
(7) Second Grade.....	Examinat'n	None	None	Grades 1-7	2	2
(8) Local Permit.....	Recomm'd'n	None	None	Grades 1-7 ^e	1	^f

^a The regulations concerning certificates make all certificates, except the Second Grade and the Local Permit, renewable for a term equal to the term for which originally issued. Except for the Collegiate Certificate, however, all such certificates are not conditioned by further requirements at present and hence by renewal they may become practically unlimited, whatever the term of original validity.

^b Conversion into Collegiate Professional Certificate dependent on credentials of professional training as in the latter. Practically the Collegiate Certificate may be unlimited in validity by renewal.

^c Certain normal courses taken may permit high school teaching.

^d Special Certificates vary according to their character.

^e Usual practice limits the employment of Local Permits to elementary school teaching. They may be issued, however, for high school teaching.

^f Theoretically not renewable, but reappointments may be possible.

TABLE 76

Outlining a suggested form for the reorganization of the system of teacher certification in Virginia

TYPE OF CERTIFICATE	Basis of issuance.	Minimum amount of education above the high school required.	Minimum amount of education above the high school required.	Scope of teaching authorized.	Period of original validity.	Valid by renewal for.
Secondary:						
Class A.....	Credentials	4 years	9 session hours	Specified subjects	3 years	Life ^a
Class B.....	Credentials	4 years	None	Specified subjects	3 years	5 years ^b
Class C.....	Credentials } Examinat'n }	2 years	None	Specified subjects	2 years	3 years ^c
Elementary:						
Class A.....	Credentials	3 years	Full normal training	Specified grades	3 years	Life ^a
Class B.....	Credentials	2 years	2 years' normal training	Specified grades	3 years	5 years ^d
Class C.....	Credentials } Examinat'n }	1 year	None	Specified grades	2 years	3 years ^c

Special:

Kindergarten, drawing, music, domestic arts, agriculture, etc., etc., etc.

a Renewable first for ten years and then for life.

b Convertible into Secondary Professional by professional study at college or university.

c One renewal only except in the case of improved preparation.

d Convertible into Elementary Professional by professional study at normal school, equivalent to one year of normal training.

TABLE 77

Showing the ratio of high school enrolments in Virginia to high school enrolments in the United States, 1916

	Virginia.	United States.	South Atlantic States.	Position of Virginia.
Per cent. of total population attending high school.....	1.29	1.69	1.01	32
Per cent. of school enrolment attending high school.....	5.53	7.49	4.13	34
Per cent. of high school pupils in public schools.....	82.93	87.32	80.33	35

Table compiled from data given on page 23 of the Report of the (U. S.) Commissioner of Education, 1917.

TABLE 78

Showing the number of schools of various grades offering high school work in 1917-18

SCHOOLS LOCATED IN	First-grade (four-year) schools.	Second-grade (three-year) schools.	Third-grade (two-year) schools.	All others giving high school work.	Total.
Counties.....	204	176	160	27	627
Cities.....	23	8	4	3	38
Totals.....	227	184	164	30	665

Table compiled from data given in the Report of the (Virginia) Superintendent of Public Instruction, 1917-18, pp. 81-82.

TABLE 79
Showing enrolments in high schools of various grades, 1917-18

SCHOOLS LOCATED IN	First-grade (four-year).	Second-grade (three-year).	Third-grade (two-year).	All other schools.	Total.	First-grade (four-year).	Second-grade (three-year).	Third grade (two-year).	All other schools.	Total.
Counties.....	10,938	4,265	2,376	616	18,195	60.1	23.4	13.1	3.4	100.0
Cities.....	9,704	352	478	169	10,195	90.7	3.2	4.5	1.6	100.0
Total.....	20,624	4,617	2,854	785	28,898	71.4	16.0	9.9	2.7	100.0

Table compiled from data given in the Report of the (Virginia) Superintendent of Public Instruction, pp. 81-82.

TABLE 80
Showing the sizes of high schools of various grades in 1918-19

NUMBER OF PUPILS ENROLLED	Numbers				Per cents			
	Four-year accredited schools.	Three- and four- year unaccred- ited schools.	Schools offering less than 12 units.	Total.	Four-year accredited.	Three- and four- year unaccred- ited.	Schools offering less than 12 units.	Total.
1-4.....	.....	.....	3	3	.....	.....	1.6	6
5-10.....	.....	5	65	70	.....	3.5	34.2	12.8
11-15.....	.....	25	59	84	.....	16.3	31.1	15.9
16-20.....	4	31	40	75	2.1	20.3	21.1	14.1
21-25.....	2	32	16	50	1.0	21.0	8.4	9.4
26-30.....	15	24	3	42	7.9	15.6	1.6	8.0
31-35.....	10	15	.....	25	5.2	9.9	.....	4.7
36-40.....	24	9	.....	33	12.6	5.1	.....	6.2
41-45.....	24	2	.....	26	12.6	1.4	.....	4.8
46-50.....	17	3	.....	20	8.9	1.9	.....	3.8
51-75.....	36	4 ^a	.....	40	18.8	2.8	.....	7.5
76-100.....	24	1 ^b	2 ^b	27	12.6	.7	1.0	5.1
Over 100.....	35 ^c	1 ^b	2 ^b	38	18.3	.7	1.0	7.1
Total.....	191	152	190	533	100.0	100.0	100.0	100.0

^a One of these was a city colored school.

^b City colored or junior high schools.

^c All but twelve city schools.

TABLE 81

Showing high school enrolments by grade and sex, 1917-18

SEX	Grades	Number				Per cent				
		I	II	III	IV	Total	I	II	III	IV
Counties—Boys.....	Girls.....	3,482	2,099	1,191	678	7,440	46.8	28.2	15.9	9.1
		4,543	3,100	2,079	1,206	10,928	41.6	28.4	19.1	11.1
Both.....	Cities—Boys.....	8,025	5,199	3,260	1,884	18,368	43.7	28.3	17.8	10.2
		1,533	1,126	793	510	3,962	38.7	28.4	20.0	12.9
Both.....	Girls.....	2,386	1,905	1,469	1,003	6,763	35.3	28.2	21.7	14.8
		5,919	3,031	2,262	1,513	10,725	36.5	28.3	21.1	14.1
Total—Boys.....	Girls.....	5,015	3,225	1,974	1,188	11,402	44.0	28.3	17.3	10.4
		6,929	5,005	3,548	2,209	17,691	39.2	28.3	20.1	12.4
Both.....		11,944	8,230	5,522	3,397	29,093	41.1	28.3	19.0	11.6

Table compiled from data given in the Report of the (Virginia) Superintendent of Public Instruction, pp. 81-82.

TABLE 82

Showing the sex balance on high school classes, 1917-18

SEX	Per cent				
	Grade I	Grade II	Grade III	Grade IV	All
Counties—Boys.....	43.4	40.4	36.2	35.4	40.5
Girls.....	56.6	59.6	63.8	64.6	59.5
Cities—Boys.....	39.0	37.1	35.1	33.7	37.0
Girls.....	61.0	62.9	64.9	66.3	63.0
Total—Boys.....	42.0	39.2	35.6	35.0	39.2
Girls.....	58.0	60.8	64.4	65.0	60.8

TABLE 83

Showing the education and training of high school teachers, 1916-17

	Number	Per cent
At least two years of college work.....	933	61.6
Normal school work.....	200	13.2
All others.....	381	25.2
Total.....	1,514	100.0

Table compiled from data given in Fifth Annual Report of the Public High Schools of Virginia for the School Year 1916-17, pp. 21-22.

TABLE 84

Showing the sources of Virginia's supply of high school teachers who have had at least two years of college education. Figures for 1916-17

INSTITUTIONS	Number			Per cent		
	Counties.	Cities.	Total.	Counties.	Cities.	Total.
Virginia State-aided colleges..	113	34	147	16.0	15.1	15.8
Virginia private colleges.....	306	99	405	43.2	44.0	43.4
Junior (two-year) colleges.....	129	13	142	18.2	5.8	15.2
Out-of-State colleges.....	160	79	239	22.6	35.1	25.6
Total.....	708	225	933	100.0	100.0	100.0

Table compiled from data given in Fifth Annual Report of the Public High Schools of Virginia for the School Year 1916-17, pp. 17-20.

TABLE 85

Showing the amounts of education and training received by 265 white high school teachers in Virginia. Figures for 1918-19

HIGHEST GRADE OF EDUCATION RECEIVED	Number	Per cent	Cumulative per cent
Less than high school I.....	1	.4	.4
First grade of high school.....	3	1.1	.4
Second grade of high school.....	2	.7	1.5
Third grade of high school.....	33	12.5	2.2
Fourth grade of high school.....	7	2.6	14.7
Normal school 1.....	69	26.0	17.3
Normal school 2.....	1	.4	43.3
Normal school 3.....	9	3.4	43.7
College 1.....	54	20.4	47.1
College 2.....	14	5.3	67.5
College 3.....	72	27.2	72.8
College 4.....			100.0
Total.....	265	100.0	100.0

French 1.....	1,905	1,469	3,374	12.3	15.0	13.4	213	40.0
French 2.....	866	617	1,483	5.6	6.3	5.9	130	24.4
French 3.....	117	187	304	.8	1.9	1.2	21	4.0
French 4.....	27	9	36	.2	.1	.1	6	1.1
Spanish 1.....	69	246	315	.5	2.5	1.3	19	3.6
Spanish 2.....	14	73	87	.1	.8	.3	7	1.3
German 1.....	9	11	20	.1	.1	.1	3	.5
German 2.....	7	0	7	.1	.....	.....	1	.2
General Science.....	4,386	990	5,376	28.4	10.1	21.5	342	64.3
Botany.....	914	832	1,746	5.9	8.5	6.9	95	17.8
Zoology.....	207	621	828	1.3	6.4	3.3	21	5.1
Physical Geography..	1,786	1,744	3,530	11.6	17.8	14.1	175	32.9
Commercial								
Geography.....	623	715	1,338	4.0	7.3	5.3	67	12.6
Physiology and								
Hygiene.....	13	121	134	.1	1.2	.5	4	.8
Biology.....	75	537	612	.5	5.5	2.4	12	2.3
Chemistry.....	1,302	790	2,092	8.4	8.1	8.3	154	29.0
Physics.....	731	699	1,430	4.1	7.2	5.7	91	17.1
Agriculture.....	2,337	85	2,422	15.0	.9	9.6	238	44.6
Commercial branches	309	1,246	1,555	2.0	12.7	6.2	33	6.2
Home Economics....	1,255	2,004	3,259	8.1	20.5	13.0	100	18.8
Manual Arts.....	18	138	156	.1	1.4	.6	8	1.5
Total enrolments...	15,444	9,776	25,220	Total	number of schools....		532	

Table compiled from data provided by the State Supervisor of High Schools, on Form H. S., No. 7.

TABLE 87
Showing the systems of training practised in different trades and industries of Virginia to supply the necessary workers¹

TRADES AND INDUSTRIES	Plants providing various types of training									
	Number				Total number	Per cent.				
	A	B	C	D		A	B	C	D	
Building trades.....	0	4	3	19	26	.0	15.4	11.5		73.1
Metal industries.....	1	25	2	16	44	2.3	56.8	4.5		36.4
Clothing industries.....	0	0	17	7	24	.0	.0	70.6		29.4
Textile industries.....	0	0	10	6	16	.0	.0	62.5		37.5
Leather industries.....	0	0	4	1	5	.0	.0	80.0		20.0
Lumber and furniture.....	0	3	2	39	44	.0	6.8	4.5		88.7
Railroad shops.....	4	3	0	5	12	33.3	25.0	.0		41.7
Ship-yards, etc.....	6	2	1	7	16	37.5	12.5	6.2		43.8
Automobile repairs, etc.....	0	4	2	72	78	.0	5.1	2.6		92.3
Plumbing.....	0	41	0	18	59	.0	69.5	.0		30.5
Electrical trades.....	0	17	3	20	40	.0	42.5	7.5		50.0
Printing, engraving.....	0	41	3	12	56	.0	73.3	5.3		21.4
Total.....	11	140	47	222	420	2.6	33.3	11.2		52.9

Key to Table:

A—Apprenticeship with organized instruction.

B—So-called apprenticeship but really incidental instruction received by a "helper."

C—Organized (?) instruction given by foremen.

D—Incidental instruction given by foremen.

¹ This table includes data from those plants only which furnished what appeared to be relatively reliable information. As a matter of fact, the provisions for training workers in those plants is probably even less adequate than the figures given would appear to indicate. At best, however, real training of industrial workers must be considered all but lacking in Virginia.

TABLE 88

Showing for sixteen cities and two towns of Virginia the industries engaging fifty or more skilled and semi-skilled workers each in 1919¹.

<i>Alexandria</i> —Carpenters, 108—83; painters, 47—37; railroad shops, 129—45; ship yards, 540—1422; total skilled and semi-skilled workers, 1,063—1,686.
<i>Bristol</i> —Carpenters, 31—24; clothing industries, 40—90; lumber and furniture, 230—92; textile industries, 0—120; leather trades, 170—30; paper industries, 120—50.
<i>Charlottesville</i> —Textile industries, 115—110; carpenters, 46—36.
<i>Clifton Forge</i> —Railroad shops, 384—220.
<i>Danville</i> —Carpenters, 89—68; painters, 39—29; clothing industries, 40—80; lumber and furniture, 53—22; textile industries, 2,585—1,335; tobacco industries, 182—23.
<i>Fredericksburg</i> —Clothing industries, 99—116; textile industries, 22—40; leather trades, 36—14.
<i>Hampton</i> —Carpenters, 39—30; printing and engraving, 43—20; ship yards, 280—330.
<i>Harrisonburg</i> —Clothing industries, 20—30; leather industries, 16—100.
<i>Lynchburg</i> —Carpenters, 145—112; painters, 70—52; builders and contractors, 42—33; bricklayers and stonemasons, 29—23; metal industries, 257—140; clothing industries, 42—748; lumber and furniture 225—89; textile industries, 50—440; leather industries, 1,138—327; printing and engraving, 92—23; (peanut and) candy products, 62—24; paper products, 25—33.
<i>Newport News</i> —Carpenters, 89—68; painters, 30—29; lumber and furniture, 80—110; railroad shops, 250—200; ship yards, 3,700—3,250; automobile repairs, 32—33.
<i>Norfolk</i> —Carpenters, 559—428; painters, 258—198; plasterers, 73—56; builders and contractors, 161—123; bricklayers and stonemasons, 100—76; sheet metal workers, 50—28; metal trades, 284—15; lumber and furniture, 112—138; textile industries, 16—393; printing and engraving, 170—10; ship yards, 728—275; automobile repairs, 210—47; plumbing, 87—67; electric trades, 88—67.
<i>Petersburg</i> —Carpenters, 127—98; painters, 61—45; builders and contractors, 37—29; metal industries, 31—20; lumber and furniture, 457—464; tobacco industries, 0—275; automobile repairs, 36—18.
<i>Portsmouth</i> —Carpenters, 327—250; painters, 131—100; builders and contractors, 53—40; metal industries, 91—83; lumber and furniture, 63—54; textile industries, 140—1,252; railroad shops, 475—252; ship yards, 3,629—875; plumbing, 33—25; electrical trades, 33—25.
<i>Pulaski</i> —Metal industries, 39—70; railroad shops, 100—25; paint products, 60—80.
<i>Roanoke</i> —Carpenters, 235—180; painters, 92—71; builders and contractors, 61—46; bricklayers and stonemasons, 47—33; metal industries, 179—240; clothing industries, 11—121; textile industries, 38—318; printing and engraving, 132—19; railroad shops, 2,677—441; automobile repairs, 57—30.
<i>Salem</i> —Metal industries, 80—24; clothing industries, 24—68; leather industries, 6—56; glass industries, 60—40.
<i>Staunton</i> —Carpenters, 39—30; clothing industries, 68—126; lumber and furniture, 52—50.
<i>Suffolk</i> —Carpenters, 54—41; metal industries, 36—40; lumber and furniture, 66—12; textile industries, 13—285.

TABLE 89
Showing the distribution of industrial workers in the cities¹ and certain towns of Virginia, according to the degree of skill, 1919—white

CITIES AND TOWNS	Male			Female			Total			Grand total White
	Skilled	Semi-skilled	Un-skilled	Skilled	Semi-skilled	Un-skilled	Skilled	Semi-skilled	Un-skilled	
Alexandria.....	997	1,528	791	27	11	.....	1,024	1,539	791	3,354
Bristol.....	602	290	267	45	205	85	647	495	352	1,494
Charlottesville.....	143	106	25	126	99	.....	269	232	25	526
Clifton Forge.....	453	250	186	.....	.....	.....	453	250	186	889
Danville.....	1,565	766	252	1,318	738	230	2,883	1,504	482	4,869
Fredericksburg.....	172	89	104	78	118	88	250	207	192	649
Hampton.....	400	373	206	18	10	5	418	391	211	1,020
Harrisonburg.....	104	150	19	20	30	15	124	180	34	238
Lynchburg.....	1,665	933	322	481	1,073	25	2,146	2,006	347	4,499
Newport News.....	3,755	1,291	1,277	5	50	.....	3,760	1,341	1,277	6,378
Norfolk.....	2,703	1,277	765	18	195	32	2,721	1,472	797	4,990
Petersburg.....	779	676	236	78	54	3	857	730	239	1,826
Portsmouth.....	5,078	1,730	5,646	45	1,247	75	5,123	2,977	5,721	13,821
Pulaski (town).....	237	193	193	4	1	.....	241	194	193	628
Roanoke.....	3,405	1,031	1,902	34	389	25	3,439	1,120	1,927	6,486
Salem (town).....	231	156	91	12	68	.....	243	224	91	558
Staunton.....	167	141	42	66	122	8	233	263	50	546
Suffolk.....	275	114	79	43	87	37	318	221	116	655
Totals.....	22,731	11,094	12,403	2,418	4,497	628	25,149	15,591	13,031	53,671

¹ Cities not included: Buena Vista, Radford, Williamsburg, Winchester (all small cities and involving a relatively small number of industrial workers) and Richmond. No survey of industrial conditions in Richmond was attempted because a survey of that city is found in Bulletin No. 162 of the U. S. Bureau of Labor Statistics, "Vocational Education Survey of Richmond."

TABLE 90
Showing the distribution of industrial workers in the cities and certain towns of Virginia, according to the degree of skill, 1919—Negro

CITIES AND TOWNS	Male			Female			Total			Grand total negro
	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled	Skilled	Semi-skilled	Unskilled	
Alexandria.....	39	147	494	.....	.....	19	39	147	513	699
Bristol.....	13	15	107	.....	.....	.....	13	15	107	135
Charlottesville.....	3	7	143	.....	10	.....	3	17	143	163
Clifton Forge.....	1	16	152	.....	.....	.....	1	16	152	169
Danville.....	217	137	403	41	8	200	258	145	603	1,006
Fredericksburg.....	3	10	83	.....	.....	2	3	10	85	98
Hampton.....	2	38	242	.....	.....	.....	2	38	242	282
Harrisonburg.....	1	12	67	.....	.....	.....	1	12	67	80
Lynchburg.....	64	98	645	6	17	3	70	115	648	833
Newport News.....	531	2,436	3,111	2	.....	.....	533	2,436	3,111	6,080
Norfolk.....	208	398	3,237	2	100	99	210	498	3,336	4,044
Petersburg.....	10	166	403	.....	150	42	16	316	445	777
Puerto Rico.....	41	97	1,613	1	1	18	42	98	1,631	1,771
Pulaski.....	33	32	142	.....	.....	.....	33	32	142	207
Roanoke.....	218	139	1,885	.....	40	9	218	179	1,894	2,291
Salem (town).....	6	12	82	.....	8	.....	6	20	82	108
Staunton.....	2	14	136	.....	.....	1	2	14	137	153
Suffolk.....	16	68	636	.....	186	152	16	254	788	1,058
Totals.....	1,414	4,497	13,581	52	520	545	1,466	5,017	14,126	20,609

See note to Table 89.

TABLE 91

Showing the percentages of non-city school buildings receiving various ratings for different characteristics. Number of non-city white schools considered 407, number of non-city colored schools considered 167

RATINGS GIVEN	White Schools (407)					Colored Schools (167)				
	A	B	C	D	E	A	B	C	D	E
Adequacy of window space.....	49.6	8.6	19.2	6.1	19.2	16.8	3.6	25.8	4.8	49.0
Arrangement of windows.....	12.2	28.0	25.1	23.6	11.1	1.2	12.6	9.0	40.7	36.5
Arrangement of seats.....	16.0	24.6	32.4	18.9	8.1	2.0	12.2	30.4	25.0	30.4
Window shades.....	8.1	15.0	17.5	21.1	38.3	1.2	7.8	12.0	20.4	58.6
Heating.....	12.8	20.6	38.1	27.8	.7	9.6	4.2	23.9	55.7	6.6
Ventilation.....	7.4	15.7	29.2	31.2	16.5	1.8	1.8	15.0	54.5	26.9
Water supply.....	14.5	25.1	35.4	19.4	5.6	5.4	19.8	39.5	29.9	5.4
Toilet facilities.....	8.9	28.2	30.2	22.1	10.6	6.0	14.4	27.5	26.9	25.2
Condition of toilets.....	3.4	21.6	28.0	29.0	18.0	1.8	12.6	29.9	23.9	31.8

Space is not here available to present details concerning the basis of rating employed above. Definite and fixed standards were employed in each case, with proper regard for accepted standards where they exist, e.g., for adequacy of window space, arrangement of windows, etc. Ten different investigators were employed after a period of training in using the standards and, after a measure of uniformity had been assured through the rating of several buildings by the staff independently before the regular field work was begun. The amount of variability in rating was reduced to a negligible quantity before the regular field work was begun.

In general the ratings employed may be interpreted loosely as follows:

- A—Meeting standard requirements in every essential particular;
- B—Falling below standards somewhat but still distinctly above merely acceptable conditions;
- C—Below standard but still acceptable;
- D—Seriously defective conditions approaching the intolerable
- E—Totally unacceptable and intolerable.

TABLE 92

Showing the percentages of one-room school buildings receiving various ratings for different characteristics. Number of white school buildings, 162, number of colored school buildings, 112.

RATINGS GIVEN	White schools (162)					Colored schools (112)				
	A	B	C	D	E	A	B	C	D	E
Adequacy of window space.....	24.1	5.0	26.5	8.0	36.4	9.8	3.6	25.9	13.4	47.3
Arrangement of windows.....	11.7	10.5	13.0	43.2	21.6	.9	4.5	4.5	42.8	47.3
Arrangement of seats..	12.3	14.2	34.0	25.3	14.2	2.0	8.0	31.0	23.0	36.0
Window shades.....	3.1	9.9	7.4	16.6	63.0	.0	4.5	10.8	15.2	69.5
Heating.....	5.0	14.2	35.2	45.0	.6	8.9	3.6	21.4	62.5	3.6
Ventilation.....	.6	8.6	21.6	45.7	23.5	.9	.0	9.8	61.6	27.7
Water supply.....	2.5	19.1	48.8	20.4	9.2	4.5	16.1	34.8	38.4	6.2
Toilet facilities.....	6.2	27.2	30.3	19.1	17.2	7.2	11.5	22.3	29.5	29.5
Condition of toilets.....	1.8	21.0	31.5	23.5	22.2	.9	13.4	27.7	25.0	33.0

See note to Table 91.

TABLE 93

Showing the percentages of defects found in the school children of seven counties of Virginia (Orange, Loudoun, Albemarle, Washington, York, Warwick, Alexandria) and in the cities of Charlottesville and Bristol, 1915. Percentages defective of those examined.

DEFECTS AND DISEASES	Counties			Cities		
	White	Colored	Total	White	Colored	Total
Defects of the eyes.....	23.7	23.0	23.0	14.0	8.0	11.0
Defects of the ears.....	4.6	2.3	3.4	1.5	.8	1.1
Defects of the teeth.....	66.5	56.5	62.5	63.0	62.5	62.7
Defects of the glands.....	33.5	47.0	40.0	67.5	73.0	70.0
Defects of the thyroid.....	10.0	15.0	12.5	8.7	10.5	9.5
Defects of the tonsils.....	46.3	53.0	50.0	70.0	60.0	65.0
Adenoids.....	33.5	42.0	37.5	44.5	41.5	43.0
Malnutrition.....	15.0	14.5	15.0	5.5	7.0	6.3
Having had whooping cough...	65.0	49.5	58.0	74.5	60.5	67.5
Having had measles.....	48.0	33.0	41.0	74.5	45.0	59.7
Having had chicken-pox.....	36.0	24.0	30.0	58.5	39.0	48.5
Having had mumps.....	37.0	24.0	31.0	71.5	34.0	52.5

Total number of children examined, white, 14,803; colored, 4,728; total, 19,531.

Standard of defect in eyes—inability to read the twenty-foot line on the Snellen's Eye Testing Card at a distance of twenty feet.

Standard of defect in ears—apparent inability to hear the whispered voice, testing the ears separately, at a distance of twenty feet.

Standard of defect in teeth—cavities only considered.

TABLE 94

Showing for fifty counties of Virginia the percentages of children of school age examined having hookworm infection. More than 1,000 examined in each of the counties considered here.

Percentage infected	Number of counties in group	COUNTIES
1-10	12	Northampton (1.2%), Tazewell (1.4%), Warwick (2.7%), Powhatan (3.4%), Frederick (3.5%), Rappahannock (4.7%), Greene (6.4%), Page (6.8%), Madison (7.0%), Fluvanna (7.6%), Loudoun (7.9%), Washington (9.5%).
11-20	10	Spotsylvania (10.0%), Cumberland (11.9%), Rockingham (11.9%), Amherst (12.5%), Amelia (13.9%), Northumberland (14.1%), Surry (18.1%), Augusta (18.2%), Rockbridge (19.0%), Campbell (19.7%).
21-30	10	Orange (20.4%), Scott (21.5%), Bedford (22.7%), Charlotte (23.5%), Albemarle (25.1%), Prince Edward (25.5%), Middlesex (25.7%), Nelson (26.4%), Sussex (28.4%), Buckingham (28.7%).
31-40	9	Appomattox (30.1%), Caroline (34.9%), Mecklenburg (35.2%), Richmond (35.2%), Lunenburg (35.9%), Louisa (36.9%), Halifax (37.3%), Pittsylvania (37.3%), Lee (38.5%).
41-50	7	Franklin (42.8%), Southampton (43.3%), Hanover (43.8%), Dickenson (46.5%), Wise (48.6%), Brunswick (48.7%), Henry (49.3%).
51-60	2	Essex (55.4%), Westmoreland (55.6%).
61-70	2	Greensville (66.5%), Patrick (66.6%).

Table compiled from Report of the State Board of Health, 1914.

TABLE 95

Showing the ratio between the amounts received from State Funds (at the rate of \$3.086 per negro child of ages seven to eighteen) and the total amount paid for colored teachers' salaries in 1917-18 for counties and cities of Virginia having over twenty-five per cent colored population¹.

Per cent that total colored teachers' salaries is of the amount received from State Funds. ¹	Thirty-two counties in each of which the Negro population is from 50% to 75% of the total population. ²	Thirty-one counties in each of which the Negro population is from 25% to 50% of the total population. ³	Ten cities in each of which the Negro population is from 25% to 50% of the total population. ⁴
25-30.....	.....	1	.....
31-35.....	.....	.....	.....
36-40.....	4	.....	.....
41-45.....	1	1	.....
46-50.....	2	2	.....
51-55.....	4	1	.....
56-60.....	3	2	.....
61-65.....	6	3	.....
66-70.....	2	4	.....
71-75.....	3	4	1
76-80.....	1	3	.....
81-85.....	2	.....	.....
86-90.....	1	.....	.....
91-95.....	2	.....	.....
96-100.....	1	2	.....
101-125.....	.....	6	.....
126-150.....	.....	1	3
151-175.....	.....	.....	3
176-200.....	.....	1	.....
Over 200.....	.....	.....	4
For all.....	64.8%	77.2%	234.1%
Medians.....	61.6%	72.0%	167.1%

¹ When the ratio is 100% it means that the total amount expended for the salaries of colored teachers is equal to the amount which the county or city receives from State funds for each colored child of ages seven to nineteen. When under 100% it means that the county or city spends for all of colored teachers' salaries less than the amount received from the State. When over 100% it means that the county or city spends from local funds the amount over 100%.

² This group of counties contains 42% of the entire colored school population of the State.

³ This group of counties contains 29% of the entire colored school population of the State.

⁴ This group of cities (plus the city of Hampton which provides no colored schools) contains 15% of the entire colored school population of the State.

⁵ These counties and cities contain all but 14% of the entire colored school population of the State.

TABLE 96

Showing previous teaching experience of the eighty-six Division Superintendents of schools in Virginia.

NUMBER DIVISION SUPERINTENDENTS	Number years' teaching experience
12.....	0
1.....	1
8.....	2
2.....	3
6.....	4
4.....	5
20.....	6-10
17.....	11-15
16.....	16-34

TABLE 97

Showing the extent of (county) Superintendents' divisions as indicated: (a) by the total land area; (b) by the school enrolments; (c) by the number of school rooms opened and the number of teachers employed.

Area in square miles	Number Divisions	Enrolment, 1917-18	Number Divisions	Number rooms opened and teachers employed	Number Divisions
Under 100.....	2	Under 1,000.....	1	Under 50.....	3
101-200.....	..	1,001-2,000.....	7	51-60.....	4
201-300.....	10	2,001-3,000.....	15	61-70.....	6
301-400.....	16	3,001-4,000.....	22	71-80.....	2
401-500.....	25	4,001-5,000.....	15	81-90.....	7
501-600.....	18	5,001-6,000.....	9	91-100.....	7
601-700.....	8	6,001-7,000.....	6	101-110.....	3
701-800.....	2	7,001-8,000.....	5	111-120.....	9
801-900.....	3	8,001-9,000.....	1	121-130.....	6
901-1,000.....	..	9,001-10,000.....	2	131-140.....	7
1,001-1,100.....	2	10,001-11,000.....	2	141-150.....	10
Total.....	86	11,001-12,000.....	..	151-160.....	6
		12,001-13,000.....	..	161-170.....	2
		13,001-14,000.....	..	171-180.....	1
		14,001-15,000.....	1	181-190.....	2
		Total.....	86	191-200.....	2
				Over 200a.....	9
				Total.....	86

^a Pittsylvania (374), Norfolk (250), Rockingham (251), Augusta (272), Accomac (207), Bedford (230), Halifax (285), Washington (218), Wise (202).

TABLE 98

Comparing conditions in one-room or two-room non-city schools, larger schools of the non-city type, and city schools in certain respects.

Figures for 1916-17

	Rural one and two room schools	Rural schools of more than two rooms	All city schools
Number of schools in each group.....	5,592	943	215
Per cent of schools in each group.....	82.8	13.9	3.3
Per cent of non-city schools in each group..	85.6	14.4	.....
Number of white pupils enrolled in each group.....	157,192	129,773	67,266
Number of colored pupils enrolled in each group.....	95,052	15,019	27,469
Number of pupils of both races enrolled....	252,244	144,792	94,735
Per cent of white pupils enrolled in each group.....	44.4	36.6	19.0
Per cent of colored pupils enrolled in each group.....	69.1	10.9	20.0
Per cent of pupils of both races enrolled....	51.3	29.4	19.3
Number of white teachers employed in each group.....	4,664	4,018	2,116
Number of colored teachers employed in each group.....	2,035	282	594
Number of teachers of both races employed	6,699	4,300	2,710
Per cent of white teachers employed in each group.....	43.2	37.2	19.6
Per cent of colored teachers employed in each group.....	69.9	9.7	20.4
Per cent of teachers of both races employed	48.9	31.4	19.7
Average number of days in the school term—white.....	125	165	177
Average number of days in the school term—colored.....	116	154	176
Average number of days in the school term—both.....	122	165	177
Pupils per teacher in white schools.....	34	32	a
Pupils per teacher in colored schools.....	47	53	a
Pupils per teacher in schools of both races...	38	34	a
Average annual salary of teachers—white...	\$245.00	\$432.00	a
Average annual salary of teachers—colored	167.00	225.00	a
Average annual salary of teachers—both races.....	222.00	421.00	a
Expenditure per pupil for teaching—white...	7.28	13.41	a
Expenditure per pupil for teaching—colored	3.38	4.79	a
Expenditure per pupil for teaching—both races.....	5.89	12.51	a

Table compiled from data given on page 141 of the Report of the (Virginia) Superintendent of Public Instruction, 1916-17, and from the extended summaries published in that volume.

a The inclusion of high-school figures forbid comparison here.

TABLE 99

Showing the numbers of counties and of non-city districts having various numbers of wagons used to transport school children in 1916-17.

NUMBER OF WAGONS	0	1	2	3	4	5	6	7	Eight or over
Number of counties.....	43	14	6	5	4	10	5	1	12
Number of districts.....	361	59	36	20	12	3	3	1	2

TABLE 100

Showing the character of high schools and high school enrolments in 1917-18

CLASSIFICATION OF SCHOOLS	Number of schools			Enrolments		
	Counties	Cities	Total	Counties	Cities	Total
First Grade.....	204	23	227	10,938	9,704	20,642
Second Grade.....	176	8	184	4,265	352	4,617
Third Grade.....	160	4	164	2,376	478	2,854
Having one high- school grade....	87	3	90	616	169	785
Total.....	627	38	665	18,195	10,703	28,898

Table compiled from figures presented on pages 79-82 of the Report of the State Superintendent of Public Instruction, 1917-18.

TABLE 101

Showing the distribution of high school pupils by grades in 1917-18

GRADES	Number			Per cent		
	Counties	Cities	Total	Counties	Cities	Total
I.....	8,025	3,919	11,944	43.7	36.6	41.2
II.....	5,199	3,031	8,230	28.3	28.3	27.7
III.....	3,260	2,262	5,522	17.7	21.1	19.2
IV.....	1,884	1,513	3,397	10.3	14.1	11.9
Total...	18,368	10,725	29,093	100.0	100.0	100.0

TABLE 102

Showing for one hundred white schools of each type in 1918-19 the average size of classes in grades five, six, and seven in the elementary school and grades first and second of the high school in one-room, two-room, and three-room non-city schools in all parts of the State.

	Elementary school			High school	
Grades	5	6	7	I	II
One-room schools, average size of classes	3.4	2.8	2.2	....	....
Two-room schools, average size of classes	6.0	5.1	4.2	....	....
Three-room schools, average size of classes	9.5	7.6	6.7	6.4	3.4

TABLE 103

*Showing the relative size of non-city high schools for
white children in 1918-19*

NUMBER OF PUPILS ENROLLED	Number of high schools of various classes			
	Four-year high schools	Three-year high schools	Two-year high schools	Total high schools
Under 15.....	3	26	103	132
15- 19.....	4	18	45	67
20- 24.....	4	32	11	47
25- 29.....	13	21	0	40
30- 34.....	13	11	5	29
35- 39.....	17	7	1	25
40- 44.....	22	7	2	31
45- 49.....	21	4	.....	25
50- 74.....	35	4	1	40
75- 99.....	24	1	.....	25
100-124.....	8	.....	.....	8
Over 124.....	4	.....	.....	4
Total.....	168	131	174	473

Table compiled from data given on State Department Form H. S.
No. 7.

TABLE 104

Showing the ratings assigned to all non-city buildings investigated for various items concerning the school plant and equipment¹

GROUNDS AND BUILDINGS		Ratings									
		407 white schools					167 colored schools				
		A	B	C	D	E	A	B	C	D	E
1	General character of grounds.....	115	131	87	54	20	17	59	54	28	9
2	Condition of grounds.....	20	93	182	96	16	1	21	100	37	8
3	Accessibility.....	214	109	64	19	55	55	46	54	9	3
4	Location on site.....	145	149	73	31	9	29	64	56	15	3
5	General plan of building.....	42	94	94	113	64	5	14	25	69	54
6	Entrances to building.....	92	86	112	79	38	9	27	29	64	38
7	Stairs and hallways.....	37	34	38	35	17	1	8	6	4	7
8	Heating.....	53	86	180	116	2	16	8	40	99	4
9	Ventilation.....	22	67	106	143	69	3	3	25	94	42
10	Adequacy of windows.....	192	29	81	27	78	31	6	43	17	70
11	Arrangement of windows.....	50	124	80	103	60	2	23	17	63	62
12	Cloakrooms.....	50	74	58	43	182	3	13	15	23	113
13	Interior walls.....	40	129	136	80	22	4	30	53	55	25
14	Outside condition of repair.....	87	102	98	99	21	13	36	39	62	17
15	Inside condition of repair.....	51	141	120	83	12	13	37	44	53	20
16	Cleanliness.....	32	137	149	71	18	11	48	68	26	14
17	Water supply.....	59	104	143	78	23	11	30	65	53	8
18	Toilet facilities.....	38	120	118	86	45	11	24	49	44	39
19	Condition of toilets.....	13	88	114	118	74	3	22	52	41	49
20	Fuel storage facilities.....	46	53	60	54	194	1	18	25	16	107
EQUIPMENT											
1	Teachers' desks.....	37	90	86	86	108	4	4	16	45	98
2	Pupils' desks.....	36	87	163	99	22	0	12	32	47	76
3	Arrangement pupils' desks.....	64	100	137	74	32	4	19	46	37	43
4	Maps, globes and charts.....	29	62	108	98	110	0	2	12	37	116
5	Blackboards.....	26	82	129	130	49	4	12	24	43	84
6	Pictures.....	13	55	88	88	163	2	2	7	26	130
7	Window shades.....	33	62	70	84	158	2	15	22	31	97
8	Libraries (books).....	52	85	53	37	178	0	5	6	4	152
Aggregate total.....		1,688	2,573	2,888	2,224	1,775	255	601	1,024	1,142	1,488

1 For explanation of ratings, see note at end of Chapter XVII.

TABLE 105

Showing the ratings assigned to one-room non-city schools investigated for various items concerning the school plant and equipment¹

		Ratings									
		162 white schools					112 colored schools				
		A	B	C	D	E	A	B	C	D	E
1	General character of grounds.....	16	49	45	38	14	7	36	41	21	7
2	Condition of grounds.....	0	22	73	58	9	0	9	67	29	7
3	Accessibility.....	77	45	34	5	0	34	32	36	7	3
4	Location on site.....	36	64	41	15	6	14	41	43	12	2
5	General plan of building.....	6	17	26	68	45	1	4	10	51	46
6	Entrances to building.....	14	25	45	53	25	0	11	20	48	33
7	Stairs and hallways.....	1	1	0	2	6	0	0	0	1	0
8	Heating.....	8	23	57	73	1	10	4	24	70	4
9	Ventilation.....	1	14	35	74	38	1	0	11	69	31
10	Adequacy of windows.....	39	8	43	13	59	11	4	29	15	53
11	Arrangement of windows.....	19	17	21	70	35	1	5	48	53	53
12	Cloakrooms.....	4	22	20	2	114	1	3	8	10	90
13	Interior walls.....	10	41	56	37	18	3	15	31	39	24
14	Outside condition of repair.....	15	33	43	54	17	5	15	28	48	16
15	Inside condition of repair.....	14	54	44	39	11	6	20	30	39	17
16	Cleanliness.....	5	50	62	34	11	5	28	50	18	10
17	Water supply.....	4	31	79	33	15	5	18	39	43	7
18	Toilet facilities.....	10	44	49	31	28	8	13	25	33	33
19	Condition of toilets.....	3	34	51	38	36	1	15	31	28	37
20	Fuel storage facilities.....	9	15	13	18	107	0	6	13	7	86
EQUIPMENT											
1	Teachers' desks.....	8	21	25	40	68	2	2	5	30	73
2	Pupils' desks.....	8	28	54	53	19	0	4	17	30	61
3	Arrangement of pupils' desks.....	20	23	55	41	23	2	8	31	23	36
4	Maps, globes and charts.....	1	8	27	43	83	0	0	5	19	88
5	Blackboards.....	3	29	36	62	32	2	2	14	22	72
6	Pictures.....	2	7	15	31	107	1	1	2	11	97
7	Window shades.....	5	16	12	27	102	0	1	12	17	78
8	Libraries (books).....	9	15	11	1	126	0	1	1	1	109
Aggregate total.....		347	757	1,072	1,053	1,155	121	302	628	789	1,173

¹ See note to Table 104.

TABLE 106

Showing the ratings assigned to two-room and three-room non-city schools investigated for various items concerning the school plant and equipment

ITEMS	Ratings									
	141 white schools					46 colored schools				
	A	B	C	D	E	A	B	C	D	E
GROUND AND BUILDINGS										
1 General character of grounds.....	37	54	33	12	5	10	18	11	6	1
2 Condition of grounds.....	2	32	70	31	6	1	8	28	8	1
3 Accessibility.....	70	38	22	11	0	18	9	17	2	0
4 Location on site.....	46	59	24	10	2	12	19	11	3	1
5 General plan of building.....	16	40	42	31	12	4	8	12	15	4
6 Entrances to building.....	40	34	37	18	7	8	13	7	14	7
7 Stairs and hallways.....	6	10	11	14	7	1	0	3	1	6
8 Heating.....	21	29	61	30	0	6	2	13	25	0
9 Ventilation.....	8	20	39	49	25	2	2	11	20	11
10 Adequacy of windows.....	81	9	25	8	18	16	14	12	2	14
11 Arrangement of windows.....	17	61	30	24	9	1	7	11	13	7
12 Cloakrooms.....	15	31	25	30	40	2	13	16	15	1
13 Interior walls.....	12	46	48	32	3	5	20	7	13	1
14 Outside condition of repair.....	35	34	35	26	0	6	16	10	11	3
15 Inside condition of repair.....	18	52	45	24	6	3	18	14	8	3
16 Cleanliness.....	10	48	53	24	6	4	9	23	9	1
17 Water supply.....	15	36	52	32	6	2	9	20	9	6
18 Toilet facilities.....	7	42	46	34	12	4	9	20	9	9
19 Condition of toilets.....	3	27	35	47	29	1	6	18	12	9
20 Fuel storage facilities.....	4	18	21	24	74	0	10	8	8	20
EQUIPMENT										
1 Teachers' desks.....	14	30	36	25	36	2	2	8	12	22
2 Pupils' desks.....	8	36	63	31	3	0	6	12	14	14
3 Arrangement pupils' desks.....	13	41	55	26	6	1	7	14	12	6
4 Maps, globes and charts.....	4	25	47	40	25	0	1	4	16	25
5 Blackboards.....	10	32	51	39	9	2	8	8	18	10
6 Pictures.....	2	21	41	35	42	1	0	5	11	29
7 Window shades.....	8	25	24	35	49	2	8	8	11	17
8 Libraries (books).....	16	33	25	19	48	0	3	2	1	40
Aggregate total.....	538	903	1,096	771	487	111	238	319	301	278

TABLE 107

*Showing the ratings assigned to non-city schools having four or more rooms investigated
for various items concerning the school plant and equipment*

GROUNDS AND BUILDINGS		Ratings											
		104 white schools						9 colored schools					
		A	B	C	D	E	A	B	C	D	E		
1	General character of grounds.....	62	28	9	4	1	0	5	2	1	1	0	1
2	Condition of grounds.....	18	39	39	7	1	0	4	5	0	0	0	0
3	Accessibility.....	67	25	8	3	1	3	5	1	0	0	0	0
4	Location on site.....	63	26	8	6	1	3	4	2	0	0	0	0
5	General plan of building.....	20	37	26	14	7	0	2	3	3	1	1	1
6	Entrances to building.....	38	27	30	8	1	1	3	2	2	2	2	2
7	Stairs and hallways.....	30	23	27	19	4	0	1	3	3	2	2	2
8	Heating.....	24	34	32	13	1	0	2	3	4	4	4	0
9	Ventilation.....	13	33	32	20	6	0	1	3	5	0	0	0
10	Adequacy of windows.....	72	12	13	6	1	4	0	2	0	3	2	3
11	Arrangement of windows.....	14	46	29	9	6	4	4	1	1	2	2	4
12	Cloakrooms.....	31	21	13	11	28	0	3	1	1	1	1	1
13	Interior walls.....	18	42	32	11	1	0	2	6	1	1	0	0
14	Outside condition of repair.....	37	35	20	11	1	3	1	4	4	4	0	0
15	Inside condition of repair.....	19	35	31	18	1	1	1	4	4	0	1	0
16	Cleanliness.....	17	39	34	13	1	2	2	3	3	4	4	0
17	Water supply.....	40	37	12	13	2	2	3	4	4	2	0	0
18	Toilet facilities.....	21	34	23	21	5	1	1	3	3	3	1	1
19	Condition of toilets.....	7	27	28	33	9	1	1	4	1	1	1	1
20	Fuel storage facilities.....	33	20	26	12	13	1	2	4	1	1	1	1
EQUIPMENT													
1	Teachers' desks.....	15	39	25	21	4	0	0	3	3	3	3	3
2	Pupils' desks.....	20	23	46	15	0	0	2	3	3	3	1	1
3	Arrangement pupils' desks.....	31	36	27	7	3	1	4	1	2	2	3	3
4	Maps, globes and charts.....	24	29	34	15	2	0	1	3	3	2	3	3
5	Blackboards.....	13	21	33	29	8	0	2	2	2	3	4	4
6	Pictures.....	9	27	32	22	14	0	1	0	4	4	4	4
7	Window shades.....	20	21	34	22	7	0	2	2	2	2	2	3
8	Libraries (books).....	27	39	17	17	4	0	1	3	2	3	3	3
Aggregate total.....		803	855	720	400	133	23	61	77	52			37

TABLE 108

Showing the aggregate of all ratings assigned to the buildings, grounds, and material equipment of non-city schools of Virginia, 1918-19

TYPES OF SCHOOLS	Number of schools	Ratings					Ratings				
		Number					Per cent				
		A	B	C	D	E	A	B	C	D	E
WHITE	162	347	757	1,072	1,053	1,155	8	17	25	24	26
	141	538	963	1,096	771	487	14	25	28	20	13
	104	803	855	720	400	133	28	29	25	14	4
	407	1,688	2,573	2,888	2,224	1,775	15	23	26	20	16
COLORED	112	121	302	628	789	1,173	4	10	21	26	39
	46	111	238	319	301	278	9	19	26	24	22
	9	23	61	77	52	37	10	24	31	21	14
	167	255	601	1,024	1,142	1,488	6	13	23	25	33

TABLE 109

Showing facts concerning character of buildings and size of grounds, 1917

	Number			Percentages		
	City.	Non-city.	Total.	City.	Non-city.	Total.
Number of buildings in State..	215	6,535	6,750	....	....	....
Number of brick or stone buildings.....	159	302	461	74	5	7
Number of frame buildings....	56	6,057	6,113	26	92	91
Number of log buildings.....	0	176	176	0	3	2
Number with a half acre or less ground.....	77	1,053	1,130	36	16	17
Number with more than one-half acre and less than one acre.....	74	1,055	1,129	34	16	17
Number with from one to two acres grounds.....	40	3,258	3,298	19	50	48
Number with two acres or more of grounds.....	24	1,169	1,193	11	18	18
Number having three rooms or more.....	181	943	1,124	84	15	17
Number having two rooms....	21	1,150	1,171	10	17	17
Number having one room.....	13	4,442	4,455	6	68	66
Number of rooms in all.....	1,791	11,427	13,218	....	....	....

TABLE 110

Showing the results of applying the Strayer score card for city school buildings to 104 school houses for white children in eighteen cities

CITIES AND BUILDINGS		Site.	Building.	Service systems.	Classrooms.	Special rooms.	Total.
	Maximum possible	125	165	230	290	140	1,000
Alexandria.....	High School.....	120	165	260	273	45	863
	Lee.....	115	162	265	262	40	844
	Washington.....	110	144	175	223	....	652
	West End.....	125	165	225	260	30	805
Buena Vista.....	High School.....	125	97	147	194	4	563
Charlottesville..	McGuffey.....	125	165	255	278	55	878
	Midway.....	120	126	173	213	85	717
Clifton Forge..	High School.....	115	124	185	240	20	684
	Moody.....	90	144	157	218	10	619
	Moody Annex.....	95	165	235	276	30	801
Danville.....	High School.....	105	162	245	271	66	849
	Bellevue.....	123	111	195	200	33	662
	Rison Park.....	115	155	248	281	70	869
	Robert E. Lee.....	100	155	252	263	62	832
	Stonewall Jackson.....	115	165	248	267	44	839
Fredericksburg..	High School.....	85	53	117	145	50	450
	Riverside.....	115	158	240	248	43	804
Harrisonburg...	High School.....	125	159	260	283	100	927
	Waterman.....	125	165	255	283	20	848
Lynchburg.....	High School.....	110	170	270	280	130	960
	Bigger.....	115	109	136	213	10	583
	Floyd.....	105	131	215	234	20	705
	Frank Rooney.....	115	141	197	234	48	735
	Guggenheimer-Millikan Kindergarten.....	115	101	173	220	....	609
	John W. Wyatt.....	118	150	241	274	76	859
	Miller Park.....	120	160	255	281	45	861
	Miller Park Annex.....	110	103	155	200	....	568
	Monroe.....	108	143	220	275	10	756
	Rivermont.....	105	159	204	276	27	771
	White Rock.....	125	145	236	268	20	794
Newport News..	High School.....	115	160	254	268	91	888
	Bankhead-Magruder....	95	125	190	238	15	663
	George Washington.....	95	136	173	221	10	635
	John W. Daniel.....	90	158	229	246	42	765
	Stonewall Jackson.....	120	122	190	238	15	685
	Thomas Jefferson.....	95	141	165	266	18	685
Norfolk.....	Maury High School.....	115	165	259	271	152	962

Showing the results of applying the Strayer score card for city school buildings to 104 school houses for white children in eighteen cities

TABLE 110—Continued.

Showing the results of applying the Strayer score card for city school buildings to 104 school houses for white children in eighteen cities

CITIES AND BUILDINGS		Site.	Building.	Service systems.	Classrooms.	Special rooms.	Total.
	Maximum possible	125	165	280	290	140	1,000
Richmond.....	John Marshall High School.....	125	165	268	277	120	955
	Binford Junior High School.....	125	165	270	283	100	943
	Barton Heights.....	120	121	174	215	62	692
	Highland Park.....	125	165	255	270	80	895
	Randolph.....	115	160	197	209	62	743
	Ginter Park.....	125	165	265	284	76	915
	Chimborazo.....	105	159	192	230	57	743
	Fairmount.....	105	142	238	245	41	771
	Bellevue Junior High School.....	125	165	275	280	88	933
	William F. Fox.....	125	165	262	283	60	895
	John B. Cary.....	125	165	262	285	60	897
Roanoke.....	Intermediate.....	110	165	265	282	125	947
	Jamieson.....	125	165	245	272	40	847
	Commerce Street.....	120	133	168	242	20	683
	Park.....	105	150	208	235	26	724
	Belmont.....	105	114	173	199	24	615
	Monroe.....	115	165	245	270	40	835
	Melrose.....	105	131	190	229	28	683
	Gilmer Avenue.....	100	112	143	220	17	592
	West End.....	115	131	205	235	10	696
	Crystal Springs.....	105	96	165	243	....	609
	High School.....	85	131	188	242	76	722
Staunton.....	R. E. Lee High School..	110	157	235	285	40	827
	Stonewall Jackson.....	100	145	268	280	30	823
	Thomas Jefferson.....	125	165	245	282	45	862
Suffolk.....	Jefferson High School..	125	155	190	285	60	815
	Randolph.....	115	145	196	265	20	741
	Mason.....	115	142	191	265	20	733
Winchester.....	John Kerr.....	105	129	194	217	20	665
	John Kerr Annex.....	95	88	139	171	....	493

TABLE 111

Showing the results of applying the Strayer score card for city school buildings to thirty-eight colored school houses in fourteen cities

CITIES AND BUILDINGS		Site.	Building.	Service systems.	Classrooms.	Special rooms.	Total.
	Maximum possible	125	165	280	290	140	1,000
Alexandria.....	Hollowell.....	95	107	120	201	5	528
Charlottesville.....	Jefferson.....	110	156	225	234	30	755
Danville.....	Arlington.....	85	97	124	182	5	493
	Monticello.....	85	126	63	227	28	539
	New Westmoreland.....	90	121	101	229	30	571
	Old Westmoreland.....	90	121	97	190	....	498
Fredericksburg.....	.....	60	53	105	125	....	343
Harrisonburg.....	Effinger.....	125	154	230	229	32	770
Lynchburg.....	Armstrong.....	110	150	180	270	....	710
	Jackson High School....	92	109	168	209	....	578
	Payne.....	115	118	130	197	3	563
	Polk Street.....	100	87	128	177	....	492
	Yoder.....	115	165	192	268	43	783
Newport News.....	John Marshall.....	95	138	208	249	50	740
	B. T. Washington.....	85	118	97	235	5	540
Norfolk.....	Abraham Lincoln.....	120	158	208	245	53	784
	J. J. Smallwood.....	95	46	119	192	....	452
	Jno. T. West.....	105	142	187	225	42	701
	Jos. Chas. Price.....	100	91	140	202	9	542
	Jno. H. Smythe.....	115	103	143	183	5	549
	Lott Carey.....	123	141	152	213	28	657
	S. C. Armstrong.....	90	67	125	188	36	506
	B. T. Washington High School.....	105	90	160	131	91	577
Petersburg.....	East Ward.....	90	72	121	181	....	464
Portsmouth.....	Brighton.....	108	117	100	223	5	553
	Chestnut Street.....	85	122	125	190	7	529
	Mt. Hermon.....	92	117	81	210	15	575
Richmond.....	Armstrong High School.	105	101	166	163	23	558
	Baker.....	115	113	248	222	25	723
	Buchanan.....	120	165	245	277	53	860
	Moore.....	95	146	263	222	30	756
	Navy Hill.....	115	128	157	211	36	647
Roanoke.....	Gainsboro.....	90	114	160	228	20	612
	Gregory.....	105	115	152	215	30	617
	Harrison.....	110	160	250	268	40	828
Staunton.....	B. T. Washington.....	110	160	172	266	20	728
	D. W. Davis.....	110	160	172	266	20	728
Suffolk.....	Washington.....	105	145	155	250	23	678

TABLE 112

Showing the number of city school buildings receiving various scores (Strayer Scale), 1919

SCORE	White		Colored	
	Number	Per cent	Number	Per cent
900-1,000.....	11	11.0		
801- 900.....	30	29.0	2	5.3
701- 800.....	26	25.5	11	28.9
601- 700.....	24	23.5	5	13.2
501- 600.....	9	9.0	14	36.8
401- 500.....	2	2.0	5	13.2
301- 400.....			1	2.6
Totals.....	102	100.0	38	100.0

TABLE 113

Showing the number of school districts, the number of district school boards, and the number of district school trustees (non-city districts only considered).

NUMBER OF COUNTIES	Having each		Having in all	
	Districts and boards in number	Trustees in number	Districts and boards in number	Trustees in number
1.....	2	6	2	6
23.....	3	9	69	207
28.....	4	12	112	336
10.....	5	15	50	150
15.....	6	18	90	270
16.....	7	21	112	336
3.....	8	24	24	72
1.....	9	27	9	27
3.....	10	30	30	90
100.....	2-10	6-30	498	1,494

TABLE 114

Showing the extent to which provisions of existing laws are met or neglected by district school boards, according to reports by the division superintendents.

DO DISTRICT SCHOOL BOARDS—	Yes	No
Make regulations for the government of the schools?.....	57	34
Employ and dismiss teachers?.....	91	0
Suspend and expel pupils?.....	77	14
Furnish free textbooks to indigent children?.....	91	0
Meet regularly at fixed intervals?.....	30	61
Hold patrons' meetings?.....	11	80
Annually prepare estimates for their needs?.....	67	24
Visit the schools?.....	81	10
Record in minutes authorization for all payments of bills?....	35	55
Indicate on each warrant the specific purpose of issuance?....	35	56
Change salary contracts only with written approval of super- intendent?.....	39	54
Observe the law as to minimum legal average attendance?....	32	59
Have the clerks keep all teachers' registers?.....	53	38
Enter into written contracts with all teachers before they begin to teach?.....	70	21
Prepare, publish, and post an annual statement according to law?.....	78	13



The R.W.B. Jackson
Library
OISE

TABLE 115

Showing the Education of Division Superintendents (Counties and Cities) 1918-19.

EDUCATION	
College graduates.....	66
Attended college at least one year, non-graduates.....	21
Normal school graduates.....	2
One or more years of high school education only.....	13
Education less than high school.....	2
Not reported.....	1
Total.....	105

TABLE 116

Showing the salaries of division superintendents (counties only), 1918-19

Salary	Number	Salary	Number	Salary	Number
Under ... \$900.	8	\$1,300-\$1,399.	5	\$1,800-\$1,899.	7
\$ 900-\$ 999.	4	1,400- 1,499.	6	1,900- 1,999.	5
1,000- 1,099.	11	1,500- 1,599.	10	2,000- 2,499.	8
1,100- 1,199.	4	1,600- 1,699.	5	2,500- 2,999.	1
1,200- 1,299.	10	1,700- 1,799.	2	3,000 or more	1

TABLE 117

Showing gross receipts for the school year ending June 30, 1918
(Cents omitted)^a

RECEIPTS

STATE FUNDS		Amount
1	Balances July 1, 1917.....	\$ 76,138
2	Apportionment No. 1 (1 mill tax).....	1,816,000
3	Apportionment No. 2 (special).....	164,236
4	One-and Two-Room School Fund (b).....	200,000
5	Rural Graded School Fund (b).....	75,000
6	High School Fund (b).....	100,000
7	Agricultural School Fund (b).....	32,000
8	Normal Training School Fund (b).....	20,000
9	Summer Normal School Fund (b).....	40,000
10	Retired Teachers' Fund (c).....	66,483
11	Literary Fund Principal.....	276,746
12	Literary Fund Income.....	106,749
13	Appropriations from State Department (d).....	20,904
14	All other receipts.....	16,229
Total State revenues.....		\$3,010,485
LOCAL FUNDS		Amount
1	Balances county and district.....	\$ 814,560
2	Balances city.....	143,799
3	County levies.....	1,187,270
4	Other county funds.....	831,917
5	District levies.....	1,681,559
6	Other district funds.....	21,648
7	City levies.....	2,042,278
8	Other city funds.....	464,652
Total local revenues.....		\$7,187,683
Total of State and local funds.....		\$10,198,168

^a For detailed items, see Report of the (Virginia) Superintendent of Public Instruction, 1917-18, pp. 62 ff.

^b Appropriations by the General Assembly.

^c State appropriation, \$10,000; deductions from teachers' salaries, \$53,210; balance interest, etc.

^d Of expenses of State Department, \$11,354 paid out of income of Literary Fund, balance appropriations.

TABLE 118

Showing disbursements of school funds for school year ending June 30, 1918
DISBURSEMENTS

EXPENSE		Amount	Per cent
I	General control.....	\$ 285,316.99	3
II	Instruction.....	5,422,761.35	62
III	Operation of school plants.....	629,450.04	7
IV	Maintenance of school plants.....	208,360.85	3
V	Auxiliary agencies.....	147,224.42	2
VI	Miscellaneous.....	279,482.62	3
VII	Permanent outlay.....	1,140,631.15	13
VIII	Other payments.....	633,846.78	7
Total net disbursements.....		\$8,747,074.20	100
Increment of Literary Fund....	\$161,632.10	408,289.10	
Delinquent taxes.....	87,454.32		
Treasurers' commissions.....	159,102.68		
Gross disbursements.....		\$9,155,363.30	

TABLE 119

Showing the position of Virginia with respect to the financial support of schools

STATES	Expenditures for schools, 1915-16		
	Per capita of total population	Per capita of school population	Per pupil in average daily attendance
United States.....	\$6.28	\$23.87	\$41.72
North Atlantic States....	7.12	30.38	52.20
North Central States.....	7.72	30.28	48.64
South Atlantic States....	3.18	10.48	19.78
South Central States.....	3.30	10.64	21.32
Western States.....	9.53	43.08	67.08
Virginia.....	3.33	10.97	21.53
Position of Virginia....	39	39	41

Table compiled from data given on pages 79-82 of the Report of the (U. S.) Commission of Education, 1917, Vol. II.

TABLE 120

Showing the number of counties and cities expending various amounts for instruction per pupil enrolled in 1917-18

AMOUNT EXPENDED PER PUPIL ENROLLED, 1917-18	Counties		Cities	
	White schools	Colored schools	White schools	Colored schools
Under ..\$2.00.....	.....	1	.....	.....
\$ 2.00-\$ 2.99.....	.....	14	.....	.....
3.00- 3.99.....	.....	25	.....	.....
4.00- 4.99.....	.....	22	.....	1
5.00- 5.99.....	2	14	.....	2
6.00- 6.99.....	6	15	.....	2
7.00- 7.99.....	3	3	.....	3
8.00- 8.99.....	6	1	.....	3
9.00- 9.99.....	8	1	1	2
10.00- 10.99.....	14	.....	.....	3
11.00- 11.99.....	7	.....	.....	3
12.00- 12.99.....	9	.....	1	1
13.00- 13.99.....	13	.....	4	.....
14.00- 14.99.....	6	.....	1	.....
15.00- 19.99.....	20	.....	8	.....
20.00- 24.99.....	4	.....	3	.....
25.00- 27.81.....	2	.....	3	.....
Median.....	\$12.76	\$4.19	\$17.71	\$8.55

Table compiled from data given in pp. 106-108 of the Report of the (Virginia) Superintendent of Public Instruction, 1917-18, which see for the records of individual counties and cities.

TABLE 121

Showing the estimated amount of money needed for teachers' salaries in Virginia on the basis of 15,000 teachers employed (i. e., one teacher to every 30-35 pupils enrolled).

AVERAGE MONTHLY SALARY	Average annual salary per term of			Average length of term		
	Seven months	Eight months	Nine months	Seven months	Eight months	Nine months
\$ 40.....	\$280	\$320	\$360	\$ 4,200,000	\$ 4,800,000	\$ 5,400,000
45.....	315	360	405	4,725,000	5,400,000	6,075,000
50.....	350	400	450	5,250,000	6,000,000	6,750,000
55.....	385	440	495	5,775,000	6,600,000	7,425,000
60.....	420	480	540	6,300,000	7,200,000	8,100,000
65.....	455	520	585	6,825,000	7,800,000	8,775,000
70.....	490	560	630	7,350,000	8,400,000	9,450,000
75.....	525	600	675	7,875,000	9,000,000	10,125,000
80.....	560	640	720	8,400,000	9,600,000	10,800,000
85.....	595	680	765	8,925,000	10,200,000	11,475,000
90.....	630	720	810	9,450,000	10,800,000	12,150,000
95.....	665	760	855	9,975,000	11,400,000	12,825,000
100.....	700	800	900	10,500,000	12,000,000	13,500,000

TABLE 122

Showing the estimated amount of money needed for instructional purposes on the basis (a) of 325,000 pupils, and (b) of 350,000 pupils in average daily attendance.

RATE PER PUPIL	325,000 pupils	350,000 pupils
\$15.....	\$4,875,000	\$5,250,000
20.....	6,500,000	7,000,000
25.....	8,125,000	8,750,000
30.....	9,750,000	10,500,000
35.....	10,375,000	12,250,000

TABLE 123

Showing for each county and city of Virginia in 1917-18 (a) certain assessed valuations, (b) cost of instruction per pupil enrolled, (c) proportions of all funds and of instructional funds received from the State.

COUNTIES	Real estate—Assessed valuation per pupil enrolled, 1917-18.	Rate of assessment in 1914 on real estate—Per cent.	Assessed valuation per pupil enrolled, of real estate, personal property, etc., 1917-18. ¹	Cost of instruction per pupil			Per cent of funds received from State—Instructional.
				White.	Colored.	Total.	
Accomac.....	\$ 869	29.0	\$1,144	10.89	1.95	42	63
Albemarle.....	1,001	30.1	1,062	13.67	6.10	41	53
Alexandria.....	2,924	31.5	3,854	14.10	.....	25	46
Alleghany.....	1,407	35.3	2,093	13.75	6.12	28	41
Amelia.....	640	33.2	1,059	14.67	3.56	58	66
Amherst.....	558	34.2	1,038	10.37	3.37	52	69
Appomattox.....	670	35.7	1,228	11.96	2.87	54	72
Augusta.....	1,567	32.3	2,300	11.68	6.35	30	46
Bath.....	2,129	35.6	2,920	15.51	6.07	25	40
Bedford.....	671	33.1	1,212	9.93	5.27	48	58
Bland.....	1,681	20.7	2,065	8.70	6.25	41	63
Botetourt.....	802	36.5	1,582	10.88	6.28	39	50
Brunswick.....	851	57.9	1,308	16.43	2.49	41	54
Buchanan.....	1,126	33.9	1,267	6.61	.....	43	80
Buckingham.....	600	48.2	873	13.22	3.56	57	67
Campbell.....	952	21.9	1,694	12.59	3.99	40	59
Caroline.....	639	50.8	1,133	13.56	4.48	51	68
Carroll.....	196	12.5	528	6.37	3.47	54	76
Charles City.....	1,209	31.5	1,624	26.92	4.57	43	65
Charlotte.....	839	50.0	1,406	14.81	3.14	47	66
Chesterfield.....	2,111	36.2	3,020	13.09	6.51	31	53
Clarke.....	2,025	26.7	3,017	10.86	7.48	37	42
Craig.....	1,088	16.5	1,474	13.18	.....	43	43
Culpeper.....	1,257	36.8	1,949	14.39	5.22	38	63
Cumberland.....	651	48.2	986	18.79	4.01	60	77
Dickenson.....	1,063	22.3	1,278	6.76	.....	42	62
Dinwiddie.....	856	41.7	1,737	18.08	2.98	37	54
Elizabeth City...	1,913	41.8	2,870	11.63	3.70	31	56
Essex.....	661	33.7	883	13.56	2.46	55	76
Fairfax.....	1,499	37.9	2,301	13.29	6.44	41	58
Fauquier.....	1,979	39.7	2,942	16.28	5.06	37	53
Floyd.....	278	18.5	413	6.36	5.69	63	77
Fluvanna.....	584	19.0	1,292	12.93	4.10	50	62
Franklin.....	351	27.1	536	6.34	4.12	65	80

¹ Includes all real estate, personal tangible property, and personal tangible property of corporations (except rolling stock of railroads, etc.).

TABLE 123—Continued

Showing for each county and city of Virginia in 1917-18 (a) certain assessed valuations, (b) cost of instruction per pupil enrolled, (c) proportions of all funds and of instructional funds received from the State.

COUNTIES	Real estate—Assessed valuation per pupil enrolled, 1917-18.	Rate of assessment in 1914 on real estate—Per cent.	Assessed valuation per pupil enrolled, of real estate, personal property, etc., 1917-18. ¹	Cost of instruction per pupil			Per cent of funds received from State—Instructional.
				White.	Colored.	Total.	
Frederick.....	\$1,298	26.1	\$1,873	9.52	6.33	40	58
Giles.....	603	25.2	1,411	10.42	7.10	88	52
Gloucester.....	654	33.8	870	12.82	4.83	46	69
Goochland.....	855	44.8	1,592	14.87	4.20	49	63
Grayson.....	320	19.1	412	6.51	.....	69	87
Greene.....	615	40.9	906	8.65	4.18	63	77
Greensville.....	1,005	35.0	1,917	16.23	4.14	45	71
Halifax.....	677	38.9	1,030	12.45	3.12	50	68
Hanover.....	965	50.6	1,661	12.90	4.73	39	58
Henrico.....	3,230	28.0	4,127	17.54	8.54	23	34
Henry.....	492	35.5	751	10.33	3.22	56	67
Highland.....	2,080	43.5	2,537	13.18	6.30	22	37
Isle of Wight....	1,140	43.8	1,704	16.43	2.25	40	63
James City.....	1,740	46.4	3,029	20.05	2.61	26	53
King and Queen..	618	37.7	847	17.00	3.15	56	64
King George.....	921	37.0	1,213	10.63	6.22	42	77
King William....	736	27.7	1,174	17.52	3.62	54	58
Lancaster.....	705	44.6	1,052	15.30	3.44	55	68
Lee.....	430	27.4	802	7.91	5.25	55	66
Loudoun.....	2,074	42.0	2,944	16.10	5.33	27	40
Louisa.....	666	37.1	1,424	13.80	3.13	49	66
Lunenburg.....	750	29.5	1,237	13.61	2.68	47	62
Madison.....	877	31.0	1,168	11.97	3.74	52	67
Mathews.....	670	29.7	939	12.73	3.87	61	85
Mecklenburg.....	525	31.5	928	12.16	2.84	48	62
Middlesex.....	708	24.9	987	12.79	4.90	57	66
Montgomery.....	658	22.9	1,280	8.81	4.06	43	66
Nansemond.....	715	39.5	1,572	19.47	3.37	43	64
Nelson.....	691	26.7	1,383	11.27	3.63	47	56
New Kent.....	980	34.4	1,848	20.40	3.68	42	62
Norfolk.....	1,895	42.3	2,681	18.85	5.61	28	44
Northampton....	1,006	23.7	1,718	22.41	3.30	37	48
Northumberland..	799	35.0	1,345	12.90	2.64	45	70
Nottoway.....	853	43.3	1,460	16.03	4.19	44	41

¹ Includes all real estate, personal tangible property, and personal tangible property of corporations (except rolling stock of railroads, etc.).

TABLE 123—Continued

Showing for each county and city of Virginia in 1917-18 (a) certain assessed valuations, (b) cost of instruction per pupil enrolled, (c) proportions of all funds and of instructional funds received from the State.

COUNTIES	Real estate—Assessed valuation per pupil enrolled, 1917-18.	Rate of assessment in 1914 on real estate—Per cent.	Assessed valuation per pupil enrolled, of real estate, personal property, etc., 1917-18. ¹	Cost of instruction per pupil			Per cent of funds received from State—Instructional.
				White.	Colored.	Total.	
Orange.....	\$1,417	41.5	\$2,158	17.72	4.13	38	51
Page.....	750	27.4	1,250	9.61	3.95	47	65
Patrick.....	266	29.3	398	5.25	2.04	55	76
Pittsylvania.....	582	32.6	873	7.57	2.29	50	72
Powhatan.....	1,109	36.2	1,640	11.80	4.27	53	82
Prince Edward...	857	44.7	1,310	21.64	4.37	46	59
Prince George....	2,273	42.9	2,761	14.83	3.78	23	31
Princess Anne....	1,242	28.3	1,795	15.92	3.03	40	50
Prince William...	1,219	36.3	2,053	13.68	5.46	36	49
Pulaski.....	875	23.1	1,328	9.58	5.19	37	54
Rappahannock...	1,216	33.9	1,773	13.00	4.51	42	58
Richmond.....	658	50.3	1,011	10.61	3.67	57	79
Roanoke.....	1,307	30.1	1,843	10.52	7.26	35	51
Rockbridge.....	1,382	36.3	2,040	11.87	5.82	41	54
Rockingham.....	1,550	39.7	2,078	9.91	6.12	30	49
Russell.....	590	17.2	931	7.82	5.96	48	62
Scott.....	231	26.0	486	5.20	3.00	56	80
Shenandoah.....	1,080	30.9	1,617	10.47	4.62	38	50
Smyth.....	637	24.4	934	10.09	6.60	39	50
Southampton....	750	42.9	1,323	19.20	3.25	33	55
Spotsylvania.....	1,027	41.7	1,529	10.32	4.66	53	64
Stafford.....	680	25.2	1,375	8.81	6.67	45	64
Surry.....	830	57.2	1,254	18.08	2.58	42	61
Sussex.....	1,143	56.4	2,016	25.38	3.23	37	54
Tazewell.....	761	21.2	1,141	9.09	9.20	35	48
Warren.....	813	32.4	1,338	8.77	6.67	45	60
Warwick.....	2,195	56.0	4,234	17.14	4.08	28	71
Washington.....	541	29.2	874	9.45	5.64	46	57
Westmoreland....	666	50.2	971	10.76	4.63	53	68
Wise.....	833	29.7	1,146	8.35	5.64	42	47
Wythe.....	950	29.9	1,465	9.76	4.69	42	55
York.....	871	32.0	1,293	10.53	5.27	45	77
All counties....	\$946	33.5	\$1,449	\$12.69	\$4.18	43	58

¹ Includes all real estate, personal tangible property, and personal tangible property of corporations (except rolling stock of railroads, etc.).

TABLE 123—Continued.

Showing for each county and city of Virginia in 1917-18 (a) certain assessed valuations, (b) cost of instruction per pupil enrolled, (c) proportions of all funds and of instructional funds received from the State.

CITIES	Real estate—Assessed valuation per pupil enrolled, 1917-18.	Rate of assessment in 1914 on real estate—Per cent.	Assessed valuation per pupil enrolled, of real estate, personal property, etc., 1917-19. ¹	Cost of instruction per pupil			Per cent of funds received from State—Instructional.
				White	Colored	Total	
Alexandria.....	\$2,392	51.8	\$2,883	14.37	10.21	32	40
Bristol.....	2,323	47.2	2,656	18.06	8.18	20	23
Buena Vista.....	1,240	59.9	1,671	12.37	11.38	25	30
Charlottesville...	2,104	49.2	2,559	13.65	4.27	32	40
Clifton Forge....	1,467	46.6	2,289	17.71	10.23	31	34
Danville.....	2,775	63.8	3,234	16.73	8.81	19	28
Fredericksburg...	2,145	76.5	2,531	13.08	7.40	32	36
Hampton.....	.....	.....	.....	13.70	.....	32	27
Harrisonburg....	1,806	.....	2,240	15.79	11.09	17	19
Hopewell.....	.....	.....	.....	.....	.....	.....	.....
Lynchburg.....	3,734	56.2	4,430	25.99	9.75	16	19
Newport News...	2,289	70.2	2,933	17.96	9.77	19	20
Norfolk.....	4,182	51.3	4,975	27.81	12.31	13	18
Petersburg.....	2,440	62.9	2,897	20.03	6.53	18	24
Portsmouth.....	1,833	46.7	2,271	18.46	6.61	23	26
Radford.....	1,534	59.7	1,986	9.15	5.80	29	37
Richmond.....	3,961	54.8	4,551	26.63	10.55	12	16
Roanoke.....	2,429	48.8	3,359	16.73	11.14	21	20
Staunton.....	3,105	47.2	3,750	18.85	8.28	10	42
Suffolk.....	2,104	47.4	2,756	21.38	7.16	18	26
Williamsburg....	2,087	69.9	2,613	24.03	5.58	31	26
Winchester.....	2,604	44.9	3,053	13.02	7.89	23	26
All cities.....	\$3,189	53.1	\$3,794	\$17.69	.....	21	20
State.....	\$1,407	.....	\$1,931	.....	.....	.....	44

¹ Includes all real estate, personal tangible property, and personal tangible property of corporations (except rolling stock of railroads, etc.).

TABLE 124

Showing certain facts concerning schools in Virginia by counties and cities

COUNTIES	Length of term in days		Per cent of enrolment in average daily attendance		Number of pupils enrolled per teacher employed		Average annual salaries of teachers	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
Accomac.....	176	130	83	75	35	87	\$376	\$170
Albemarle.....	146	116	60	63	26	31	362	188
Alexandria.....	200	200	62	56	40	41	558	411
Alleghany.....	154	154	77	63	35	54	487	325
Amelia.....	146	122	67	57	24	44	349	158
Amherst.....	130	98	64	70	27	37	236	126
Appomattox.....	146	80	55	48	27	42	317	120
Augusta.....	138	118	66	65	27	29	320	186
Bath.....	140	118	62	56	22	41	347	249
Bedford.....	146	130	53	59	32	36	320	191
Bland.....	126	120	60	66	30	29	261	181
Botetourt.....	134	112	64	70	27	32	304	201
Brunswick.....	156	120	61	47	26	53	421	132
Buchanan.....	120	.....	70	.....	39	.....	260	.....
Buckingham.....	130	120	59	62	22	40	300	131
Campbell.....	146	108	61	62	30	41	379	165
Caroline.....	158	122	79	68	27	42	352	184
Carroll.....	120	100	65	68	39	39	249	137
Charles City.....	172	128	72	49	17	52	458	238
Charlotte.....	142	110	62	50	26	47	404	142
Chesterfield.....	158	138	66	51	29	36	385	234
Clarke.....	154	142	71	63	31	37	337	280
Craig.....	138	.....	80	.....	26	.....	351	0
Culpeper.....	154	116	60	50	25	32	360	184
Cumberland.....	158	126	60	70	20	44	377	178
Dickenson.....	126	.....	71	.....	38	.....	259	.....
Dinwiddie.....	150	106	69	55	21	49	377	146
Elizabeth City...	194	166	72	64	44	47	520	217
Essex.....	144	118	61	55	24	43	330	145
Fairfax.....	158	138	69	67	31	37	408	239
Fauquier.....	160	126	60	51	27	38	447	192
Floyd.....	118	108	62	61	33	24	210	169
Fluvanna.....	144	114	61	51	22	33	283	135
Franklin.....	116	114	56	53	51	38	213	157
Frederick.....	112	120	60	47	27	33	260	212

TABLE 124—Continued

Showing certain facts concerning schools in Virginia by counties and cities

COUNTIES	Length of term in days		Per cent of enrolment in average daily attendance		Number of pupils enrolled per teacher employed		Average annual salaries of teachers	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
Giles.....	130	106	53	77	31	22	\$319	\$157
Gloucester.....	156	134	73	60	26	44	329	218
Goochland.....	146	138	61	51	21	44	310	186
Grayson.....	122	100	73	76	33	43	217	126
Greene.....	120	100	67	56	23	41	246	171
Greensville.....	156	118	66	52	26	48	422	198
Halifax.....	138	116	72	53	23	43	348	150
Hanover.....	158	158	61	55	36	55	347	164
Henrico.....	198	198	76	71	23	37	483	313
Henry.....	130	116	54	55	31	45	322	144
Highland.....	138	122	66	58	43	23	353	173
Isle of Wight....	168	108	72	65	23	53	459	153
James City.....	176	104	73	58	25	40	503	142
King and Queen..	164	112	70	56	20	42	346	133
King George.....	130	138	56	48	25	40	264	250
King William....	158	124	63	57	22	37	377	172
Lancaster.....	150	120	59	59	25	43	375	165
Lee.....	128	140	53	70	44	32	349	168
Loudoun.....	160	118	61	60	28	35	443	188
Louisa.....	148	104	55	49	20	36	275	113
Lunenburg.....	138	118	59	56	28	56	361	150
Madison.....	136	110	65	57	26	41	307	155
Mathews.....	156	108	66	63	35	36	320	140
Mecklenburg.....	148	116	63	48	31	57	372	163
Middlesex.....	164	126	78	59	25	42	393	206
Montgomery.....	138	120	63	53	32	41	285	167
Nansemond.....	178	124	70	69	24	61	465	205
Nelson.....	136	98	54	63	26	37	278	136
New Kent.....	140	102	70	60	18	38	370	140
Norfolk.....	184	168	71	62	31	56	593	313
Nottoway.....	164	136	74	55	25	48	467	188
Northampton....	176	136	73	45	32	97	532	221
Northumberland	150	108	67	62	34	33	365	139
Orange.....	144	100	93	63	21	36	365	146
Page.....	128	100	55	64	31	36	297	142

TABLE 124—Continued

Showing certain facts concerning schools in Virginia by counties and cities

COUNTIES	Length of term in days		Per cent of enrolment in average daily attendance		Number of pupils enrolled per teacher employed		Average annual salaries of teachers	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
Patrick.....	112	102	64	50	46	54	\$243	\$107
Pittsylvania.....	128	104	55	61	38	49	260	112
Powhatan.....	124	122	67	62	21	39	250	168
Prince Edward...	158	122	68	56	23	45	489	195
Prince George...	188	124	67	45	33	62	502	177
Princess Anne...	168	142	74	64	29	66	461	201
Prince William...	156	138	64	65	28	38	389	123
Pulaski.....	144	120	61	59	37	40	358	210
Rappahannock...	142	106	58	74	25	38	321	171
Richmond.....	142	122	65	62	27	48	286	175
Roanoke.....	158	136	67	60	37	35	389	252
Rockbridge.....	146	138	66	71	27	36	324	212
Rockingham.....	132	118	66	51	29	32	288	198
Russell.....	130	116	59	63	47	38	370	229
Scott.....	148	120	73	64	67	80	352	240
Shenandoah.....	144	64	66	60	30	21	317	99
Smyth.....	158	134	65	73	37	32	375	209
Southampton....	168	120	61	46	24	56	465	183
Spotsylvania....	130	98	64	50	24	34	251	159
Stafford.....	120	122	59	54	27	32	235	211
Surry.....	162	114	75	54	24	60	435	155
Sussex.....	178	140	67	45	19	64	504	208
Tazewell.....	164	154	61	70	42	42	378	390
Warren.....	134	120	64	62	30	26	264	174
Warwick.....	178	124	72	59	30	48	508	197
Washington.....	144	126	64	76	36	29	326	166
Westmoreland...	142	120	69	70	29	45	315	207
Wise.....	158	150	55	66	52	51	434	287
Wythe.....	148	114	67	59	33	38	326	175
York.....	154	136	66	45	32	45	340	239
Average counties.	144	122	64	58	31	45	\$349	\$183

TABLE 124—Continued

CITIES	Length of term in days		Per cent of enrolment in average daily attendance		Number of pupils enrolled per teacher employed		Average annual salaries of teachers	
	White.	Colored.	White.	Colored.	White.	Colored.	White.	Colored.
Alexandria.....	180	188	80	80	48	47	\$687	\$481
Bristol.....	174	174	79	65	33	47	604	383
Buena Vista.....	180	130	67	66	41	36	502	404
Charlottesville...	178	182	74	64	36	60	496	297
Clifton Forge....	180	180	85	75	30	36	558	366
Danville.....	178	174	80	80	37	41	658	364
Fredericksburg...	180	180	83	78	53	50	691	374
Hampton.....	182	.....	77	.....	41	.....	556	0
Harrisonburg....	174	154	75	69	38	31	594	354
Lynchburg.....	182	182	83	82	35	53	900	579
Newport News...	180	178	75	54	38	55	676	540
Norfolk.....	200	200	89	87	30	40	822	488
Petersburg.....	176	174	80	78	36	69	729	449
Portsmouth.....	188	188	81	79	43	58	798	420
Radford.....	180	140	79	73	51	42	469	244
Richmond.....	170	174	71	73	29	45	764	475
Roanoke.....	176	142	78	68	60	60	658	434
Staunton.....	172	172	80	73	36	46	681	376
Suffolk.....	180	180	89	88	50	49	563	327
Williamsburg....	180	180	71	65	29	57	707	315
Winchester.....	200	200	84	73	46	50	611	400
Average cities....	180	180	77	79	38	48	\$734	\$461
Average State....	150	134	67	62	32	45	.....	.....

372.9755 V817V v.1 c.1

Virginia. E # Virginia
public schools : a survey

OISE



3 0005 02022403 9

372.9755

V817V

Part 1

Virginia. Education Commission
Virginia pbulic schools

372.9755

V817V

Part 1

Virginia. Education Commission
Virginia public schools

